

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF VIRGINIA

CHARLOTTESVILLE DIVISION

IN THE MATTER OF THE SEARCH OF
351 McCormick Road
Charlottesville, VA 22904

Case No. 3:22-mj-35

AFFIDAVIT IN SUPPORT OF AN
APPLICATION UNDER RULE 41 FOR A
WARRANT TO SEARCH AND SEIZE

I, Clifford P. Greene, being first duly sworn, hereby depose and state as follows:

I. INTRODUCTION

A. Purpose of Affidavit

1. I respectfully submit this affidavit in support of an application for search warrants for the following residence, office, vehicles, cellphones, and individuals:
 - a. 1850 River Inn Lane, Charlottesville, Virginia 22901 (herein, “**TARGET RESIDENCE**”);
 - b. Thornton Hall, Office E311, 351 McCormick Road, Charlottesville, VA (herein, “**TARGET OFFICE**”);
 - c. 2020 Volvo XC60, Blue, Virginia license plate UNE4856 (herein, “**TARGET VEHICLE 1**”);
 - d. 2015 Honda Accord, Silver, Virginia license plate VHZ6833 (herein, “**TARGET VEHICLE 2**”);
 - e. iPhone 11, White, 128GB-CHN, SN: C7CZLMA1N742 (herein, “**TARGET CELLPHONE 1**”);
 - f. iPhone 6S, Silver, 64GB-USA, SN: DNPQT032GRXX (herein, “**TARGET CELLPHONE 2**”);

- g. the person of Gang Tao (**TAO**); and
- h. the person of Lanlin Chen (**CHEN**).

The **TARGET RESIDENCE**, **TARGET OFFICE**, **TARGET VEHICLE 1**, **TARGET VEHICLE 2**, **TARGET CELLPHONE 1**, **TARGET CELLPHONE 2**, **TAO**, and **CHEN** (collectively, the “**SEARCH TARGETS**”) are described more fully in Attachments A-1, A-2, A-3, A-4, A-5, A-6, A-7, and A-8, respectively, which are attached hereto and incorporated by reference herein. The information to be searched for and seized from the **SEARCH TARGETS** is described in Attachments B-1, B-2, B-3, B-4, B-5, B-6, B-7, and B-8, which are also incorporated by reference herein. Attachments B-1 and B-2 pertain to the **TARGET RESIDENCE** and **TARGET OFFICE**, respectively. Attachments B-3 and B-4 pertain to **TARGET VEHICLE 1** and **TARGET VEHICLE 2**, respectively. Attachments B-5 and B-6 pertain to **TARGET CELLPHONE 1** and **TARGET CELLPHONE 2**, respectively. Attachments B-7 and B-8 pertain to **TAO** and **CHEN**, respectively.

2. As detailed below, I believe there is probable cause to conclude that evidence, contraband, fruits, and instrumentalities of violations of 18 U.S.C §§ 371 (Conspiracy), 1001(a)(2) (False statements to Government Agents or Agencies), and 1343 (Wire Fraud) (collectively, the “Target Offenses”) are present at, within, and/or in the possession of the **SEARCH TARGETS**.

3. This affidavit is intended to show merely that there is sufficient probable cause for the requested warrants and does not set forth all of my knowledge about this matter. I have set forth only those facts necessary to establish probable cause to believe that evidence, instrumentalities, contraband or fruits of the Target Offenses, as detailed in Attachments B-1 through B-8, will be present at, within, and/or under the control of the **SEARCH TARGETS**, as detailed in Attachments A-1 through A-8.

B. Agent Background and Experience

4. I am a Special Agent with the Federal Bureau of Investigation (FBI) and have been since June 2012. As part of my duties, I conduct national security investigations of various criminal violations, to include espionage, economic espionage, theft of intellectual property and trade secrets and have participated in the execution of numerous search warrants resulting in the seizure of computers, electronic media, digital storage devices and physical evidence. Through my training and experience, I have gained exposure to foreign talent recruitment plans sponsored by foreign governments, which sometimes lead to stealing of trade secrets, breaking export control laws, and/or violating conflict-of-interest policies.

5. By virtue of my employment with the FBI, I have performed a variety of investigative techniques including conducting arrests and executing Federal search warrants. These search warrants have included the search and seizure of evidence from a University researcher's office involving both paper and electronic files. I am also familiar with the fact that many criminals use cell phones to exchange standard texts, as well as encrypted communications with one another in furtherance of their criminal conduct. As such, I am familiar with the types of evidence often found within cellular telephones, vehicles, and residences, as well as on the persons perpetrating the Target Offenses, as well as other federal crimes. As a Special Agent, I am also an investigative or law enforcement officer within the meaning of 18 U.S.C. § 2510(7).

C. Sources of Information

6. The facts in this affidavit are based on my personal knowledge and participation in the investigation, information gathered by other investigators, my review of law enforcement reports and open-source information, evidence obtained through federal search warrants and grand jury subpoenas, information obtained from the National Science Foundation, Office of Inspector General (NSF-OIG), and interviews of witnesses employed by the University of Virginia, as well as other information that I believe to be reliable. Since this affidavit is being submitted for the limited purpose of securing the requested search warrants, I have not included each and every fact known to me concerning this investigation. This affidavit also reflects my

GREENE AFF. IN SUPPORT OF APP. FOR SEARCH WARRANTS

current understanding of facts relating to this investigation, but my understanding may change in the future as the investigation proceeds. Similarly, where information contained in reports and other documents or records are referenced herein, such information is also described in sum and substance and in relevant part only. This affidavit is intended to show only that there is sufficient probable cause for the requested warrants and does not set forth all my knowledge about this matter.

II. TARGET OFFENSES

7. Based on the information set forth below, I assert there is probable cause to conclude the Target Offenses have and/or are being committed by **TAO** and others. The elements of the Target Offenses are as follows:

a. Under 18 U.S.C. § 371, it is unlawful to conspire to defraud the United States. The elements of this offense are as follows: (1) two or more persons agreed to defraud the United States by cheating the United States government or any of its agencies out of money or property or obstructing or interfering with one of the United States government's lawful functions, by deceit, craft, trickery, or dishonest means; (2) the defendant was a party or member to the agreement; (3) the defendant joined in the agreement or conspiracy knowing of its objective to defraud the United States and intending to join together with at least one other conspirator to achieve that objective; that is, the defendant and at least one other alleged conspirator shared a unity of purpose and then intent to achieve a common goal(s) or objective(s), to defraud the United States; and (4) at some time during the existence of the agreement or conspiracy, at least one of its members performed an overt act in order to further the objective of the agreement.

b. Under 18 U.S.C. § 1001(a)(2), it is unlawful to make a false statement or representation to a department or agency of the United States. The elements of this offense are as follows: (1) the defendant made a statement or representation; (2) the statement was false, fictitious, or fraudulent; (3) the statement or representation was

material; (4) the defendant acted knowingly and willfully; and (5) the statement pertained to a matter within the jurisdiction of the executive, legislative, or judicial branch of the United States government.

c. Under 18 U.S.C. § 1343, it is unlawful to commit wire fraud. The elements of this offense are as follows: (1) the defendant devised a scheme to defraud or to obtain money or property by materially false or fraudulent pretenses, representations or promises (or willfully participated in such a scheme with knowledge of its fraudulent nature); (2) the defendant acted with intent to defraud; and (3) in advancing, furthering, or carrying out the scheme, (name) transmitted any writing, signal, or sound by means of a wire, radio, or television communication in interstate commerce or caused the transmission of any writing, signal, or sound of some kind by means of a wire, radio, or television communication in interstate commerce.

III. PROBABLE CAUSE

A. Overview of Investigation

8. The United States is investigating Gang TAO (**TAO**) for obtaining grant funds through the University of Virginia (UVA) and from the National Science Foundation (NSF) based on false statements and representations, omissions, and concealment of material facts. **TAO** is a UVA Tenured Professor in Electrical and Computer Engineering. He has held this position since June 1992. As a UVA Tenured Professor, he is authorized to apply for and receive federal funds for grant-sponsored research on behalf of the university. In particular, **TAO** has conducted research funded by the National Science Foundation (NSF) and served as the Principal Investigator (PI) on such projects.¹ Between 2008 and 2020, **TAO** received more than twelve

¹ In general, the PI is the primary individual or lead responsible for the preparation, conduct, and administration of a research grant. **TAO** has also applied to serve as the PI for grant research funded by multiple other USG funding entities, as detailed in subsections herein.

U.S. government research grants as either a PI or Co-PI involving the U.S. Air Force, U.S. Navy, U.S. Army, NASA, DOE and NSF. **TAO** also received an annual salary from UVA.

9. During the same time, **TAO** received a salary from a university in the People's Republic of China (PRC), Nanjing University of Aeronautics and Astronautics (NUAA). **TAO** also received grant funding from the National Science Foundation of China (NSFC) and obtained nine patents as a result.

10. While receiving salaries from UVA and NUAA, **TAO** repeatedly and falsely claimed to UVA that he did not have any conflicts of interest and held no patents, and made other significant misrepresentations. As detailed herein, United States has developed evidence that **TAO** made numerous false statements and material omissions to UVA and NSF which allowed him to obtain federal grant funds.

B. Background on National Science Foundation Grant Funding Process

11. NSF is an independent federal agency of whose mission involves supporting fields of fundamental science and engineering, except for medical science.² NSF is “tasked with keeping the United States at the leading edge of discovery” in science and engineering fields with an annual operating budget of \$8.8 billion (FY 2022).³ NSF funds research through grants, contracts, and cooperative agreements. NSF funding accounts for approximately 20% percent of the federal support provided to academic institutions for basic research.⁴ UVA published an open source article in 2019 documenting its research funding, which stated that 2019 was UVA’s highest year to date in terms of overall grant funding. That year, UVA received \$42.5 million in research funding from the NSF—a 72% increase over the preceding five years.

12. NSF requires various disclosures from applicants as part of evaluating grant funding requests. These disclosures include, but are not limited to, the following: (a)

² See generally <https://www.nsf.gov/about/>.

³ *Id.*

⁴ *Id.*

organizational affiliations within the last 12 months; (b) current and pending support from other sources, including foreign sources and pending proposals; and (c) a list of all past appointments as part of a biographical sketch.

13. On multiple applications submitted to NSF between 2014 and 2018, **TAO** listed no appointments with any Chinese universities, and failed to disclose multiple significant grants (ongoing and new) from the National Science Foundation of China (NSFC). These NSFC grants substantially overlapped with the same time period and subject matter **TAO** had committed to the NSF grant. **TAO** also failed to disclose his membership in multiple Chinese Talent Programs (CTP) to NSF. **TAO** failed to disclose the extended teaching and research commitments he had made to NUAA. Representatives from UVA and NSF confirmed that these false representations and omissions were material to the grant review process.

14. As detailed herein, **TAO** caused his false statements, representations, and omissions made to UVA to be conveyed by wire in connection with the submission of one or more NSF grant applications from UVA through NSF.gov to NSF servers in Virginia. In addition to the false statements conveyed to NSF, **TAO** also conspired with others to conceal his involvement in the Chinese Thousand Talent Programs and his work on behalf of NUAA from UVA through various electronic communications, as detailed herein.

C. Chinese Thousand Talent Programs (TTPs) and TAO's TTP Participation

15. Foreign governments sponsor talent recruitment programs, commonly referred to as talent plans, to bring foreign knowledge and innovation to their country, universities, and companies. Talent plan participants are often offered financial, personal, and professional benefits in exchange for their efforts. The PRC, in particular, allows talent plan participants to hold jobs in the United States, which gives them access to intellectual property, trade secrets, pre-publication data and methods, and U.S. funding for their research.⁵ The PRC oversees hundreds

⁵ See “Threat to US Business and Universities,” available at: <https://publicintelligence.net/fbi-chinese-talentprograms/>.

of talent plans. The ChangJiang Scholar Program and the Thousand Talent Program (TTP) are Chinese talent programs designed to recruit foreign experts.

16. Talent Recruits often sign contracts covering their participation in Talent Programs. These contracts obligate the Recruits to work for a specified period in China, and often detail the specific research the Talent Recruit will perform or specify the business that is to be developed by the proposed new company. This contractual obligation often resembles or even replicates the work the Talent Recruit performs or performed for his or her U.S. employer, thus incentivizing the Talent Recruit to leverage knowledge and intellectual property obtained from U.S. businesses, corporations, and even U.S. government laboratories. This contractual relationship differentiates Talent Programs from standard scientific research grants or conventional international collaboration. In many cases, Talent Program contracts also require Talent Recruits to identify additional overseas talent to join his or her Talent Program research team in China, resulting in a cell-based recruitment model in which Talent Recruits can also serve as Chinese Talent Program recruiters.

17. **TAO** is a Legal Permanent Resident (LPR) of the United States and a Chinese citizen. He is a participant in a prominent Chinese talent plans. As detailed herein, **TAO** has an extended history of applying to and accepting Chinese government funded grants and participating in Chinese talent plans without disclosing those activities to UVA, NSF, and other United States grant funding agencies (USG), as required. **TAO** has received a series of NSF and other USG grants at least as early as 1997.

18. On July 27, 2009, **TAO** acknowledged in an email to an associate at NUAA that he had signed his ChangJiang Scholar contract and returned it via email. On October 1, 2010, **TAO** applied to the TTP with NUAA, as detailed in later sections. **TAO** was not accepted until October 1, 2011. In December 2013, **TAO** received funding for a project on behalf of the First Research Institute of China Aerospace Science and Technology Corporation totaling 50,000 yuan

(\$7,800).⁶ In January 2014, TAO applied for and received NSFC funding on behalf of NUAA totaling 800,000 yuan (\$126,000). In January 2016, TAO received NSFC funding on behalf of NUAA totaling 2.9 million yuan (\$457,000). According to PRC tax certificates and statements from NUAA found within TAO's email accounts, TAO's average yearly income from 2012 to 2019 was 149,116 yuan (\$23,500).

19. Participation in a Chinese Talent Program is not in and of itself unlawful. As set forth below, however, TAO concealed and failed to make required disclosures of the support and direction he received from the PRC Government.

D. Open Source Research on Nanjing University of Aeronautics and Astronautics (NUAA)

20. According to open source research, Nanjing University of Aeronautics and Astronautics (NUAA) is a public university located in Nanjing, China. NUAA is operated by the People's Republic of China's (PRC) Ministry of Industry and Information Technology and is one of the Seven Sons of National Defense – seven Chinese Universities that serve as part of China's defense sector and which fall under the supervision of China's Military Commission. The Seven Sons spend half of their research budgets on defense research and hold top-secret security credentials. NUAA is regarded as one of the top engineering universities in China, is home to multiple national and state Key Laboratories that conduct research in engineering fields with defense applications and is integrated into China's Military-Civil Fusion (MCF) effort. NUAA conducts research in the areas hypersonic aircraft and vehicles, aircraft carrier-based aircraft, helicopters, unmanned aerial vehicles (UAVs), and navigation, guidance, and control systems.

21. According to open source research, China's MCF strategy aims to make the Chinese military the most technologically advanced military in the world by 2049, and is a core element of China's broader strategic geopolitical goal of leading world affairs. A key element of the MCF strategy is to strengthen ties between China's civilian research and commercial sectors

⁶ All currency exchange values described in this Affidavit are approximate amounts based on present valuation for ease of reference.

and its military and defense industrial sectors. The PRC supplements national research and development efforts by illicitly acquiring and diverting the world's cutting-edge technologies to achieve China's military dominance. China's MCF effort leverages clandestine and non-traditional collectors to acquire key U.S. technologies from academia and public-private research institutions.

22. This open source research aligns with information uncovered in this investigation. Between 2012 and 2017, **TAO** was listed as an author on at least twelve published journal articles related to helicopter research. All of these articles were co-authored with NUAA associates and six were funded by PRC grants on which **TAO** was the Principal Investigator.

E. TAO's Recent Publications with Aerospace and Military Applications

23. Based on information provided by the U.S. Air Force Research Laboratory at Wright-Patterson AFB, the FBI assesses that **TAO**'s research has military applications including but not limited to hypersonic weapons, unmanned aerial vehicles (UAVs), helicopters, and satellites.

24. On March 14, 2022, the FBI conducted an open source review of **TAO**'s UVA webpage for recent publications of interest at ece.virginia.edu/gt9s/jp.html. In total, investigators identified 180 journal publications attributed to **TAO**. The following published articles are the most recent, which focus on hypersonic technology, spacecraft, and adaptive control:⁷

- a. Y. J. Ma, H. Ren, G. Tao and B. Jiang, "Adaptive compensation for actuation sign faults of flexible spacecraft," *IEEE Transactions on Aerospace and Electronic Systems*, vol. 57, no. 2, pp. 1288-1300, April 2021.
- b. S. H. Yang, G. Tao, B. Jiang and Z. Y. Zhen, "Practical output tracking control for hypersonic vehicle systems with nonlinear parametrization," *Journal of the Franklin Institute*, vol. 357, no. 17, pp. 12380-12413, November 2020.

⁷ "Adaptive control" refers to the method for controlling systems with parameters which vary or are initially uncertain. For example, as an aircraft flies, its mass slowly decreases as a result of fuel consumption; a control law that adapts itself to such changing conditions is necessary.

- c. D. Zhao, B. Jiang, H. Yang and G. Tao, “Fault tolerant control of flexible air-breathing hypersonic vehicles in linear ODE-beam systems,” *International Journal of Control*, vol. 93, no. 4, pp. 820-831, 2020.
- d. Z. Y. Zhen, G. Tao, Y. Xu and G. Song, “Multivariable adaptive control based consensus flight control system for UAVs formation,” *Aerospace Science and Technology*, vol. 93, Article 105336, October 2019.
- e. Z. Y. Zhen, C. J. Yu, G. Tao and Y. X. Yue, “A multivariable adaptive control scheme for automatic carrier landing of UAV,” *Aerospace Science and Technology*, vol. 92, pp. 714-721, September 2019.

F. NSF Grant Application Processes and TAO’s False Statements

25. NSF requires all senior project personnel included in any grant application to provide certain information, including: (a) all information regarding collaborators and other affiliations on the Collaborators and Other Affiliations (“COA”); (b) list all current and pending support, including foreign support and pending proposals; and (c) provide a biographical sketch listing all current and past appointments. Pursuant to NSF’s Proposal and Award Policies and Procedures Guide, all current and pending support from any source that requires a portion of time of the Principal Investigator (PI) or any other senior personnel must be disclosed, even if they receive no salary support from the project(s).

26. As a Legal Permanent Resident and Tenured Professor at UVA, **TAO** is eligible to apply for U.S. federal grants from the NSF through UVA. On November 3, 2014, **TAO** applied for a federal grant from the NSF, for a research proposal funding from April 1, 2015 to April 1, 2018. This investigation focuses on whether **TAO** obtained federal grant funding through false statements and representations, omissions, and concealment of material facts, namely his commitment to NUAA, his participation in the CTP’s ChangJiang Scholar Program and the TTP, and his ongoing grant projects with the National Science Foundation of China.

G. TAO's Email Communications via UVA, Yahoo!, and Microsoft Accounts

27. Through the investigation, FBI received and reviewed email records from three separate accounts used by **TAO**.⁸ These accounts were tied to **TAO** through open source internet research and/or identified through successive search warrants linking the users of the accounts. Upon review of the accounts' contents, investigators discovered numerous emails confirming his role as the user of the accounts.

28. In June 2020, UVA voluntarily provided the FBI email communications from **TAO**'s work account, gt9s@virginia.edu. In November 2020, investigators obtained email communications for **TAO**'s Yahoo! account, gang_tao06@yahoo.com, through a search warrant issued by the U.S. District Court for the Western District of Virginia. In June 2021, investigators likewise obtained email communications for **TAO**'s Microsoft account, gang_tao06@hotmail.com via search warrant. The paragraphs below detail some of the key communications and documents from these sources. Among other items, the emails discuss **TAO**'s recruitment to NUAA as a multiple talent plan recipient, his research focus while at NUAA, and his failure to disclose these affiliations to both UVA and NSF as required.

*1. Emails Establishing **TAO**'s ChangJiang Scholars Program and TTP Participation*

29. On April 1, 2008, **TAO** received an email from binjiang@nuaa.edu.cn⁹ via gt9s@ece.virginia.edu with the following subject line: "Hello and invitation for the ChangJiang Scholars Program." In the body of email, the sender asks **TAO** how he has been recently.

⁸ Many of the email communications and documents detailed in this subsection, as well as mention of foreign-based websites, are written in Chinese and have been translated by FBI linguists. Many of these email communications are described in excerpt and summary fashion, as opposed to verbatim translations, unless otherwise noted with direct quotations.

⁹ JIANG Bin served as the head of NUAA's Automation Department from about November 2012 to about June 2019. Open source research indicates JIANG was a Vice President at NUAA as recently as May 2021 when he met with the Deputy Director of the MCF Development Committee of the Shanghai Municipal Party Committee, and members of the PRC Air Force, at NUAA.

30. On July 27, 2009, **TAO** sent an email via gt9s@class6.ee.virginia.edu to an individual identified as Director Jiao of NUAA at jiaoht@nuaa.edu.cn. In the email, **TAO** thanked Jiao for his help to make “this” happen and stated that he looks forward to working with his NUAA colleagues. **TAO** affirmed his contract looked good, signed it, and attached it to his email.

31. On September 2, 2009, **TAO** sent an email via gt9s@class6.ee.virginia.edu to Director Jiao at jiaoht@nuaa.edu.cn. In the email, **TAO** thanked him for the invitation to the “important” ceremony but stated that he cannot attend due to his busy schedule. **TAO** asked Professors Liu and Jiang to arrange for someone to accept the honorable ChangJiang Professorship on his behalf.

32. October 1, 2009, per an open source press release from the Chinese Ministry of Industry and Information Technology (MIIT), NUAA offered ChangJiang Scholar Professorships to **TAO** and two others.

33. On October 19, 2009, **TAO** received an email via gt9s@class6.ee.virginia.edu from Ruiyun Qi at ruiyun.qi@nuaa.edu.cn. Qi stated that a form is required as part of official procedure to activate **TAO**’s grant, which will allow office supplies, furniture, a personal computer, and other items to be purchased before **TAO**’s arrival in December.

2. *Emails Establishing **TAO**’s Focus Areas and Further Commitment to NUAA*

34. October 26, 2010, **TAO** sent an email via gang_tao06@yahoo.com to Bin Jiang at binjiang@nuaa.edu.cn, stating he decided to apply to the TTP after “careful consideration and planning” with a focus on “robust and adaptive fault detection and tolerant control for aircraft, spacecraft and UAVs applications.” Bin Jiang responded he is glad to hear that **TAO** will apply for the TTP and Jiang will ask NUAA to give **TAO** strong support. He also agrees with **TAO**’s plan approach.

35. On December 7, 2010, **TAO** received an email via gang_tao06@yahoo.com from Professor Xing Yu of South East RMIT University with the subject line: Thousand Talent GREENE AFF. IN SUPPORT OF APP. FOR SEARCH WARRANTS

Program. Professor Yu advised that he has been asked to “head hunt” candidates for nomination to the TTP and **TAO** is among the “first few.” He asks if **TAO** would like to be nominated by South-East University.

36. On December 8, 2010, **TAO** forwarded an email via gt9s@class6.ee.virginia.edu to Bin Jiang at binjiang@yahoo.com. **TAO** asked if there are any new developments to NUAA’s plan for nominating its own candidates for the next year and he needs to get back to Professor Yu. In ensuing emails, Bin Jiang responded that he reported to Division Head Gong Huajun, the former Party Committee Secretary. Per Jiang, Gong replied that NUAA will prioritize **TAO**’s application. Then, **TAO** replied he appreciates JIANG’s support and arrangement and **TAO** will decline the invitation from South-East University.

37. On April 25, 2011, **TAO** received an email via gt9s@class6.ee.virginia.edu from Bin Jiang at binjiang@yahoo.com. Bin advised that he heard **TAO** was a “priority” recommendation at the meeting for evaluation for the TTP and believes **TAO** will get the award.

38. On July 14, 2011, **TAO** received an email via gang_tao06@yahoo.com from Ruiyun Qi via ruiyun.qi@yahoo.com. Qi wrote that HR needs **TAO** to commit to starting work at NUAA in the second half of the year. In response, **TAO** said he can “start work the second half of the year. The length of work is yet to be decided.”¹⁰

39. On July 15, 2011, **TAO** received an email via gang_tao06@yahoo.com from Ruiyun Qi at ruiyun.qi@yahoo.com. Qi said the college could not get in touch with **TAO** so the college sent the commitment on **TAO**’s behalf. Qi says the commitment does not require **TAO** to give up his teaching in the U.S. but it would require more time than ChangJiang Scholars.

40. On August 1, 2011, an open source news article from the SINA news agency stated, “Through the rigorous evaluation and review process and with the approval from The High-Level Overseas Talent Recruitment Program, seven talents introduced from Nanjing region are now

¹⁰ International travel records indicate that **TAO** traveled to China three times in six month period following this conversation.

participating in the sixth Thousand Talent Program.” Per the article, there were a total of 55 participants in Nanjing region awarded in Thousand Talent Program and Nanjing has the most TTP participants throughout Jiangsu Province. Gang **TAO** of UVA, sponsored by NUAA, is one of the seven listed individuals.

41. On March 21, 2012, **TAO** received an email via gang_tao06@yahoo.com from Ruiyun Qi via ruiyun.qi@yahoo.com. Qi advised that the Organization Department of Chinese Communist Party require universities to provide information on whether their TTP scholars have reported to duty. Qi drafted a statement about **TAO**. In response, **TAO** signed it and sent it back via email.

42. On July 3, 2012, **TAO** sent an email via gang_tao06@yahoo.com to Division Director Gong Huajun at ghj301@nuaa.edu.cn. **TAO** said Ministry of S&T denied his 2012 grant application. **TAO** indicated the same topic will be used in their NSFC application and stated that NASA is trying to study the topic. **TAO** stated he is willing to explain the importance of this topic to the experts in China. **TAO** then states this denied application will have a negative effect on **TAO**’s current work, ChangJiang work, and his TTP work. **TAO** then reiterated that he needs support. In response, Gong replied that they presented the issue to the Ministry of S&T and it will be reconsidered next semester.

43. On September 13, 2012, **TAO** sent an email via gang_tao06@yahoo.com to Ruiyun Qi at ruiyun.qi@nuaa.edu.com. **TAO** stated that he would go to NUAA in early October to start his second year of his TTP work. Before that, **TAO** asked Qi to help with being paid for his first year of work.

3. *UVA Records and International Travel Records Show **TAO** Requested and Received Permission for a Spring 2012 Sabbatical*

44. On February 28, 2008, **TAO** requested for and was approved to convert his faculty appointment from a 9-month to 12-month position. As a 12-month employee, **TAO** would not have been allowed to travel to work at any other institution during the summer months for

collaboration as would have been allowable under a 9-month term.

45. On May 3, 2010, **TAO** requested for and was approved to convert his faculty appointment from a 12-month to 9-month position, thus freeing up his summer months for external activities.

46. On September 24, 2010, **TAO** submitted a sabbatical application describing a summary of his work from 2005-2010 as well as a research and teaching development plan for his request. **TAO** stated that during his sabbatical, he planned to expand his research with NASA, develop new ideas for research and collaborate with people from the Air Force or Boeing or to submit proposals to industry or the NSF. **TAO** also claimed that he would develop a plan to renovate the UVA undergraduate Controls Lab, develop research and education collaborations with colleagues at other universities, including some international institutes such as Beijing Institute of Technology with whom UVA has a formal collaborative agreement, and Nanjing University of Aeronautics and Astronautics, with whom **TAO** has had some research collaboration on some research topics of common interest.

47. On October 26, 2010, as mentioned previously in this affidavit, **TAO** sent an email via gang_tao06@yahoo.com to Bin Jiang at ebjiang@yahoo.com. **TAO** advised of his intentions to apply for the Thousand Talents Program on behalf of NUAA.

48. On November 2, 2010, UVA's Dean of the School of Engineering and Applied Science approved TAO's sabbatical request for the 2012 spring semester.

49. An open source news article was located from SINA news, dated August 1, 2011 stating, among other things, that through rigorous evaluation and review and with the approval of the High-Level Overseas Talent Recruitment Program, Seven talents introduced from the Nanjing region are now participating in the sixth Thousand Talent Program. **TAO** was listed as one of the seven, **TAO** was sponsored by NUAA.

50. A review of **TAO**'s travel history shows five trips to China during and around the time of his 2012 sabbatical. **TAO** spent a total of 105 days in China.

4. *Emails About TAO's Payment for Work at NUAA and NSFC Proposal*

51. On April 18, 2013, **TAO** received an email via gang_tao06@yahoo.com from Yang Hao at haoyang@nuaa.edu.cn. Hao wrote to let him know that his TTP funds havd arrived. **TAO** was to receive 1,000,000 RMB (\$157,000) dispersed over three years at a 4:3:3 ratio. The FBI believes this ration reference likely means the money will be dispersed sequentially in the following percentages over a three-year period: 40%, 30%, and 30%. Hao will disperse the first 400K RMB (\$62,800) now. In response, **TAO** thanked Hao and said he (**TAO**) will decide how to get the money when he comes to NUAA next.

52. August 21, 2013, **TAO** forwarded an email via gt9s@virginia.edu to his Yahoo account at gang_tao06@yahoo.com. The email was a notification from the NSFC that his proposal (No. 61374130) has been approved. This proposal encompasses January 2014 to December 2017.

5. *Emails Related to TAO's Loyalty to China, the "Secret" Unit at NUAA, and His Multi-Year Renewal of His TTP Contract*

53. On May 11, 2013, **TAO** sent an email via at gang_tao06@yahoo.com to Hao Yang at haoyang@nuaa.edu.cn. **TAO** advised "Prof. Jiang suggested to make his part shorter in the PPT for Monday's presentation. So I made one and sent it to Tan Chang and you. The version with full description of Prof. Jiang's part is attached here for record." Attached was a PowerPoint titled, 2013-Tao Gang-Full.ppt. The PowerPoint is a progress report on a 2012 Project. It states in part, that the project is based on NASA's 2007 Research and this project will meet China's aviation demand. In addition, this research project will promote NUAA into the leading position in China and in the world.

54. On December 1, 2013, **TAO** received an email via at gang_tao06@yahoo.com from Hao Yang at haoyang@nuaa.edu.cn. Hao advised **TAO** that he had modified the file to his opinion and asked **TAO** to look at it. **TAO** replied that he was satisfied with the speech script and had one modification. The modification TAO made is add the following language: "to connect the research team to international studies and direction....to innovate important theories

and work on practical topics...to be in the leading position in China, then to gradually to be the leader in the world.”¹¹

55. On July 17, 2014, **TAO** received an email via gang_tao06@yahoo.com from Tan Chang at lovetanchang@163.com.¹² Chang advised that since their university is a “Secret” unit, the form attached needs to be completed by their department no later than July 20. **TAO** responded, copying Yang Hao, and asked Tan to work with Yang to complete the form because there is some information he is not sure of.

56. On September 19, 2014, **TAO** sent an email via gang_tao06@yahoo.com to Yang Hao at haoyang@nuaa.edu.cn (copying Bin Jiang). **TAO** stated his interested in renewing his TTP contract. In response, Bin Jiang sent a reply that he is glad to see **TAO** will renew his contract.

57. A document dated October 31, 2014, was found within **TAO**’s account at gang_tao06@yahoo.com. The document was a three-year extension with the TTP sponsored by NUAA and signed by **TAO**. The contract stated it expired on October 2017, stipulated **TAO**’s payment terms, **TAO**’s responsibilities as a TTP member, and **TAO**’s responsibilities to NUAA.

*6. **TAO** Fails to Disclose His NUAA and TTP Affiliations to NSF and Emails About His China-Based Laboratory*

58. November 3, 2014, UVA submitted NSF proposal number 1509704 on behalf of **TAO** for an award totaling \$347,503 and 36-month duration starting in April 2015. In connection with this proposal, **TAO** failed to disclose his affiliations to NUAA, the ChangJiang Scholars, or the TTP, as required in the appropriate sections. **TAO** also did not disclose that he had current

¹¹ This email is significant to investigators because it is consistent with **TAO** seeking to further the position of China, as opposed to his employer (UVA) or one of his grant funders, i.e. the United States.

¹² Based on my training and experience, I know that email addresses ending in @163.com are commonly used by China-based individuals and, in this matter, **TAO** has communicated with individuals using this type of email address in connection with the Target Offenses.

financial and laboratory support from the NSFC as a PI for the research he was conducting as an employee of NUAA.

59. On March 1, 2015, **TAO** sent an email via gang_tao06@yahoo.com to Hao Yang at haoyang@nuaa.edu.cn. **TAO** inquired about various topics, including asking Hao to check with human resources on his 2015 NUAA “1000-Plan” professorship fund and whether it was received yet. Per **TAO**, they are starting to need it for graduate student salary and reimbursement for his travel.

60. On May 8, 2015, **TAO** sent an email via gang_tao06@yahoo.com to Hao Yang at haoyang@nuaa.edu.cn. **TAO** asked Yang to check and see if NUAA has issued his new 1000-professorship appointment certificate. Hao replied they have not, only his employment contract.

61. On June 16, 2015, **TAO** sent an email via gang_tao06@yahoo.com to Bin Jiang at binjiang@nuaa.edu.cn. **TAO** asked if the TTP fund may be used for moving and furniture for the new office and laboratory. Jiang replied that the college should cover it and tells **TAO** to ask Hao Yang to contact Director Li Jie.

62. On June 19, 2015, **TAO** received an email via gang_tao06@yahoo.com from Zhang Yanjun at yjzhang3700@126.com. Yanjun copied **TAO** on an email also sent to Jiang Bin via binjiang@nuaa.edu.cn. Zhang stated the expenditure for **TAO**’s research laboratory is \$14,240, including moving reimbursement, tables, and chairs. Jiang replied that he has approved it online.

7. *Records About **TAO**’s Application for a NSFC Grant and the Scope of His Research Includes Hypersonic Aircraft Control*

63. A document was found within **TAO**’s email account, gang_tao06@yahoo.com. The document was an application package for a National Science Foundation of China grant in 2015. **TAO** submitted the grant application to NSFC on or around August 29, 2015. The project is titled, “Research into functional resilient theory for nonlinear systems with structural uncertainties and hypersonic aircraft control.” The project approval number is 61533009. **TAO**

is listed as affiliated with NUAA and Harbin Institute of Technology is identified as a collaborating organization. Lin Wei is identified as TAO's collaborator from the latter organization. The proposal requested 3,460,000 yuan (\$543,000) and from January 2016 to December 2020. The communication email address is identified as gt9s@virginia.edu.

8. *Email About TAO's Travel to NUAA and China-Based Article About His Recruitment*

64. On March 14, 2016, **TAO** sent an email via gang_tao06@yahoo.com to Bin Jiang at binjiang@nuaa.edu.cn. **TAO** advised that he has to delay travel to NUAA this week because of various reviewing duties (for the department of UVA and NSF) in the United States. **TAO** reported he will go to NUAA as soon as the semester is over in early May. **TAO** said he will take care of matters concerning NUAA while in the United States.

On or around May 1, 2016, an open source news article was released by NUAA discussing the recruitment of **TAO**. In the article, Hao Yang discussed how **TAO** was successfully recruited to NUAA as an overseas high-level talent.

9. *TAO's Curriculum Vitae From Yahoo! Account Lists NUAA and TTP Affiliations, But TAO's Annual Report to UVA Omits These Key References*

65. A document was recovered from the search warrant of **TAO** via gang_tao06@yahoo.com. The document was a curriculum vitae (CV) for **TAO** dated December 26, 2016. The CV detailed **TAO**'s educational and research achievements, including listing his role as a ChangJiang Scholar and TTP professor at NUAA since 2009. A distinctive signature appearing to be **TAO**'s is located at the end of the document. (This signature style is consistent with **TAO**'s signature on UVA paperwork.)

66. In Fall of 2016, **TAO** participated in a UVA annual review, included his submission of an updated CV. **TAO** failed to disclose his roles as a ChangJiang Scholar or TTP member affiliated with NUAA on the CV submitted to UVA in connection with the review.

*10. PowerPoint Presentation by **TAO** Details His Accomplishments for NUAA and Emails About TTP Award for Full-Time Work for NUAA*

67. A PowerPoint presentation was retrieved from **TAO** via gang_tao06@yahoo.com. The presentation appears to have been completed for NUAA by **TAO**, at least in part. It is titled: “Thousand Talent Appointed Professor Work Completion Report.” The presentation lists **TAO** as the presenter and is dated December 2017. It outlines accomplishments and work completed by **TAO** as a NUAA TTP Professor from 2011 to 2017.

68. On January 14, 2018, **TAO** received an email via gang_tao06@yahoo.com from Wen LiYan at wenliyan8710@163.com. Wen provided a letter she and Dong Min drafted to send to NUAA leadership requesting to payment of the full TTP award of 1,000,000 RMB (\$157,000) to **TAO**. In the letter, Wen and Dong stated **TAO** has been working full-time for NUAA, even though he is not there full-time.¹³

*11. Emails About Another Renewal of **TAO**’s TTP Contract*

69. On February 8, 2018, **TAO** received an email via gang_tao06@yahoo.com from Wen LiYan at wenliyan8710@163.com. Wen advised that there are issues regarding the renewal of **TAO**’s TTP contract.

70. On March 4, 2018, **TAO** sent an email via gang_tao06@yahoo.com to Wen LiYan at wenliyan8710@163.com. **TAO** stated that he has been busy but will think seriously about the stipulations for his new contract.

71. A document was located within **TAO**’s email account, via gang_tao06@yahoo.com. The document, dated February 1, 2019, is a recommendation letter from **TAO** for Zhang Yanjun (of NUAA). In the letter, **TAO** represents that **TAO** is a TTP Professor at NUAA and he recommends Zhang to be a postdoc at the Chinese Academy of Sciences. (This document is significant to the FBI because it is consistent with **TAO** continuing his relationship as a professor at NUAA as recently as February 2019.)

¹³ As detailed in subsections of this Affidavit, **TAO** was considered a full-time UVA employee for purposes of his time and attention, as well as his USG research proposals.

H. TAO's Monetary Compensation

72. The following People's Republic of China tax certificates, as well as statements from NUAA, were retrieved from **TAO** via gang_tao06@yahoo.com. The documents show **TAO**'s yearly China-based earnings from 2012 through 2019 as noted below:

- a. 2012 PRC Income Tax Certificate, salary \$254,328 RMB (\$39,000)¹⁴
- b. 2013 PRC Income Tax Certificate, salary \$166,065 RMB (\$26,000)
- c. 2014 PRC Income Tax Certificate, salary \$193,097 RMB (\$30,000)
- d. 2015 NUAA Statement, Salary 116,709 RMB (\$18,000)
- e. 2016 NUAA Statement, Salary 151,612 RMB (\$23,000)
- f. 2017 NUAA Statement, Salary 94,412 RMB (\$14,000)
- g. 2018 NUAA PRC Tax Certificate, Salary 101,161 RMB (\$15,000)
- h. 2019 Email, Salary 115, 548 RMB (\$18,000)

73. Search warrant results have shown that **TAO** has carried cash back to the U.S. (under reporting thresholds), had cash shipped to his house, and had NUAA associates carry cash to the United States to deliver to him. Results also indicate **TAO**'s wife is aware of his activities and is a participant in money-transfer requests involving his Chinese-based assets. The following are examples thereof:

74. On May 22, 2016, **TAO** sent an email via gang_tao06@yahoo.com to Wen LiYan at wenliyan8710@163.com. **TAO** asked her to exchange RMB for \$8,000 for him with the Bank of Communications. (Of note, the Bank of Communications is located in China with a branch located at NUAA's campus, per open-source research.)

75. On June 26, 2016, **TAO** received an email via gang_tao06@yahoo.com from Wen LiYan at wenliyan8710@163.com, which stated that Dong Min exchanged \$8,000 from RMB to USD for **TAO**.

¹⁴ As mentioned in other sections of this Affidavit, currency equivalents are approximate and based on current exchange rates.

76. On June 30, 2016, **TAO** sent an email via gang_tao06@yahoo.com to Wen LiYan at wenliyan8710@163.com, asking her to bring \$7,100 in cash to him. **TAO** advises Wen not to report the cash when going through customs and claim it is for the conference if asked. (Of note, agents determined that **TAO** attended at a conference in Boston, Massachusetts in this approximate time frame based on a photograph depicting him at the location and hotel occupancy records.) In response, Wen advises that she and Zhang Yanjun will bring the cash to **TAO** and they will also bring the stuff he left in Nanjing.

77. On October 5, 2016, **TAO** received an email via gang_tao06@yahoo.com from Wen LiYan at wenliyan8710@163.com. Wen advised **TAO** that he has received a reimbursement of 12,905 RMB (\$2,000). **TAO** responded that he does not have time to exchange the money to USD and asked Wen to withdraw it.

78. On September 22, 2017, **TAO** received an email via gang_tao06@yahoo.com from Wen LiYan at wenliyan8710@163.com. Wen advised the total reimbursement for **TAO**'s trip to NUAA was 27,772 RMB (\$4,300). Wen offered to convert the balance to USD because the exchange rate was more favorable at the time. In response, **TAO** asked Wen to exchange \$8,000.

79. On April 28, 2018, **TAO** received an email via gang_tao06@yahoo.com from Wen LiYan at wenliyan8710@163.com. Wen advised that she has processed **TAO**'s reimbursement and kept aside 89,000 RMB (\$14,000) for **TAO**.

80. A document was retrieved from **TAO** via gang_tao06@yahoo.com. The document detailed **TAO**'s expenses for reimbursement and was dated September 2018. It listed reimbursements totally 32,322 RMB (\$5,000) for his flight, accommodations, and meals for the month.

81. On February 28, 2019, **TAO** received an email via gang_tao06@yahoo.com from Wen LiYan at wenliyan8710@163.com. Wen reported that Dong Min exchanged **TAO**'s money (69,053 RMB) to \$8,000 (equal to 53,556 RMB) and that Wen will deliver \$8,000 in U.S. dollars

to **TAO** in Beijing. Wen stated that she will keep the balance of **TAO**'s money (i.e., 15498 RMB) stored in Wen's office.

82. On June 23, 2019, **TAO** received an email via gang_tao06@yahoo.com from Wen LiYan at wenliyan8710@163.com. Wen provided **TAO** a bookkeeping update:

- Wen kept 52,339 RMB (\$8,200) at her place and exchanged 13,884 RMB to \$2,800 for **TAO**;
- **TAO**'s wife's remaining Alipay¹⁵ account balance is 14,417 RMB (\$2,270);
- **TAO**'s wife transferred 50,000 RMB to Wen in exchange for \$7,200;
- Dong Min exchanged RMB for \$2,000 on June 6, \$3,000 on June 18, and \$3,000 on June 19; and
- \$7,200 is carried back by **TAO**¹⁶ with the remaining \$800 kept by Wen for **TAO**.

According to Wen, after everything was completed, **TAO** has 14,273 (about \$2,000) at Wen's place. Wen promised to deposit this amount to **TAO**'s Huaxia Bank debit card. Wen also reported having \$2,800 in cash. **TAO** responded and thanked Wen.

83. On July 12, 2019, **TAO** received an email via gang_tao06@yahoo.com from Wen LiYan at wenliyan8710@163.com. Wen wrote that she processed his travel expense reimbursement of 55,569 RMB (\$8,700) and the funds were deposited onto **TAO**'s Huaxia Bank account. Wen asks **TAO**'s wife (Lanlin **CHEN**) to confirm the deposits via the Huaxia Bank app on her phone.

84. Agents have identified **TAO**'s wife's cell phone as **TARGET CELLPHONE 2**, via a federal grand jury subpoena service to Apple, Inc. for any accounts held by **TAO**. The return showed that **TARGET CELLPHONE 2** was associated with **TAO**'s wife (**CHEN**) and that **TARGET CELLPHONE 1** was associated with **TAO**. Based on the above

¹⁵ AliPay is an online and mobile payment platform established in China.

¹⁶ This email was sent two days after **TAO** returned from a 30-day trip based on international travel records. Travel records show **TAO** travelled to China on May 22, 2019, and returned to the United States on June 21, 2019.

communications, my training and experience, and my participation in this investigation, I believe evidence of the Target Offenses will be found within **TARGET CELLPHONE 2**. For example, I believe Lanlin **CHEN** likely accesses email, communicates with **Wen**, and monitors bank activity through Alipay and Huaxia Bank applications via **TARGET CELLPHONE 2**. Through this investigation, the FBI determined **CHEN** traveled to China on one or more occasions with **TAO** during the time when **TAO** was working with NUAA and likely conducting research or teaching for NUAA during the overseas visit. Based on the information described herein, I believe there is probable cause to conclude **CHEN** is witting of **TAO**'s involvement with NUAA and the money derived therefrom, which forms the basis for the Target Offenses. I also know that individuals using Apple products across a family often share content and access to documents, photographs, cloud files, and other data. Thus, I believe evidence of the Target Offenses will be found on **TARGET CELLPHONE 1** and **TARGET CELLPHONE 2**.

I. TAO's False Statements on the Grant Application Submitted to NSF, and the Award of NSF Grant Money

85. UVA records show that NSF proposal 1509704 listing **TAO** as the PI was submitted successfully to NSF by UVA employee J.M. on November 3, 2014. The NSF research focused on Adaptive Control at UVA. The research proposal focus was "Adaptive Fault Accommodation Based Resilient Control Techniques." The proposal requested approximately \$347,503 for a 36-month research period starting on April 1, 2015. **TAO** provided his biographical sketch in support of the NSF application. In the biographical sketch, **TAO** stated he has worked at UVA from September 1992 through present. In addition, **TAO** stated he has been collaborating¹⁷ with faculty members and graduate students from the College of Automation

¹⁷ Based on interviews conducted with UVA representatives, it is common for a U.S.-based professor or researcher to engage in external collaboration. This collaboration is typically distinct from unreported employment with the external organization, unreported extended engagement, and/or unreported activity as a PI. This type of unreported activity raises conflict of interest and commitment issues, as detailed in later sections of this Affidavit.

Engineering at NUAA, in China on resilient control systems research, with applications to aircraft and spacecraft.

86. The NSF application required **TAO**, as the PI, to list his organizational affiliations, as well as current and pending support.¹⁸ However, **TAO** failed to disclose the following:

- a. Organizational affiliations: **TAO** had teaching and research commitments and received research funding from NUAA and had extended his three-year commitment to NUAA via the TTP through 2017 within the last 12 months.
- b. Current and pending support: **TAO** had a grant from the National Science Foundation of China, providing 800,000 RMB (\$126,000) for a project that ran from January 2014 to December 2017. **TAO** also received a salary from NUAA and had a laboratory and office space provided to him at NUAA.

87. The NSF research proposal contained a section about “Facilities, Equipment, and Other Resources,” which listed required facilities and equipment to be used to conduct the identified research. The application stated (emphasis added):

The PI’s research group at the University of Virginia has networked computer systems accessible to local PC systems and central unix systems with various necessary software. The department and engineering school have several computer labs with computing capacities needed for this research. Several sets of equipment for system analysis are available in our current controls teaching lab which is under expansion for research as well.

88. The above statement shows **TAO** represented to NSF that proposed research would be conducted at UVA, including through campus computer laboratories and via “networked computer systems.” Per UVA, **TAO** possesses an office located at Thornton Hall, Office E311,

¹⁸ Based on NSF materials, current and pending support includes all resources made available to an individual in support of and/or related to all of his/her research efforts, regardless of whether or not they have monetary value. In general, this also includes detailed disclosures of current grant funding sources and pending grant applications. The disclosures typically include detailed information such as project titles, PI identification, source of support, total award amount, total award covered, location of project, and person months per year committed to the project.

351 McCormick Road, Charlottesville, Virginia 22904, i.e. the **TARGET OFFICE**. Per UVA, **TAO's TARGET OFFICE** provided and continues to provide access to networked computers and it constitutes the only space dedicated exclusively for **TAO**'s use at UVA. Based on my training and experience, I believe evidence of the Target Offenses are likely to be found at the **TARGET OFFICE** as it provides **TAO** with UVA-sponsored space to conduct and store records of his work, USG-funded research, and communications. Based on these same sources, I also know that individuals commonly store items in their workspaces in hardcopy or electronic format, such as documentation regarding their work, research-related materials, and travel-related records.

89. **TAO** certified to UVA that the information submitted to NSF in connection with proposal 1509704 was true, complete, and accurate. More specifically, the NSF research proposal required the PI to certify that the "information submitted herein is true, complete and accurate to the best of your knowledge; [and] any false, facetious, or fraudulent statement or claims may subject you to criminal, civil, or administration penalties[.]" On November 2, 2014, **TAO** digitally signed the proposal as the "Principal Investigator" using his UVA log-on credentials.

90. **TAO** submitted this NSF proposal containing false statements only three days after signing an agreement to extend his TTP services for an additional three-year period and continue his commitment to NUAA. Below are some highlights from **TAO**'s TTP extension contract, which were responsive to application disclosure requirements but were not disclosed to NSF:

- a. TTP Objectives: **TAO** will develop innovative, scientific and technological research, participate in the national key subjects on Navigation, Guidance, and Control and the key research subjects of Jiangsu Province on Control Science Engineering, develop a research center on applying navigation and safety controls based on aviation self-adaptive control technology. Teach graduate level courses, seminars and conduct academic exchanges and research cooperation both foreign and domestic.

- b. TPP Current Support: TAO will receive 80,000 RMB yearly (\$12,500) as well as 6,000 RMB monthly (\$945) on top of what is provided by the national program.¹⁹
- c. TPP Attribution: All results obtained by TAO during the contracting period are considered job-related accomplishments. TAO must attach the name of NUAA to his publications and applications for awards, patents, and financial support.

91. TAO ultimately received an award of \$347,503 for NSF Proposal Number 1509704, per a UVA “Notice of Award” document dated July 31, 2015. The grant was awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. §§ 1861-75) and was subject to Research Terms and Conditions, dated December 26, 2014. As of July 17, 2018, the NSF approved a no-cost extension for TAO, which extended the end of the research grant to July 31, 2019.

J. TAO’s False Statements and Misrepresentations to UVA

1. TAO’s Annual COI Disclosures from 2016-2020

92. TAO has repeatedly omitted and concealed his overseas appointments and grants on annual disclosure forms submitted to UVA. Pursuant to UVA policies, researchers are required to submit annual Conflict of Interest (COI) disclosures, which require disclosure of any outside income exceeding \$5,000, any outside consulting work, and any ownership in an outside business. According to UVA records, TAO did not report any outside income between 2016 and 2021. As detailed in the emails discussed above, TAO exchanged communications that reflect numerous reimbursements, income, and other monies exceeding \$5,000 in connection with his work as a TPP participant and NUAA professor.

¹⁹ The FBI assesses the national program is likely a reference to an as-yet unidentified additional Chinese government-based funding source that provided TAO with further income/payment for his services.

2. ***TAO's Responses to UVA's Expanded Reporting Requirements in 2021, Which Inquired About Talent Plan Participation and Patent Holdings***

93. In October 2021, UVA implemented a new External Activities Disclosure (EAD) form. All UVA researchers were required to complete the form by December 1, 2021. Below are a list of key questions, TAO's false or misleading responses, and the accurate answers (emphasis added):

Question:	During the period of your employment at UVA, have you been named as an inventor on any patent or patent application other than those submitted on UVA's behalf by the LVG?
TAO's Response:	No.
True Answer:	TAO is listed as the inventor on nine Chinese patents, as detailed in this Affidavit on pg. 34.

Question:	Are you currently, or have you been in the last three years, a participant in a foreign government talent recruitment (or similar) program? A link was provided in this question that defined foreign government talent recruitment programs based on an NSF-defined criteria.
Provided Definition: ²⁰	A foreign government talent recruitment program covered by this NSF policy includes: a) Compensation provided by the foreign state to the targeted individual in exchange for the individual transferring knowledge and expertise to the foreign country. The compensation can take several forms, such as cash, research funding, honorific titles, career advancement opportunities, promised future compensation, or other types of remuneration or other consideration. b) Recruitment refers to the foreign state sponsor's active engagement in attracting the targeted individual to join the foreign-sponsored program and transfer their knowledge and expertise to

²⁰ The definition provided is a direct quote.

	the foreign state. The targeted individual may be employed and located in the United States, or in the foreign state. Note that, generally, an invitation by a foreign state to simply attend or present work at an international conference would not constitute recruitment.
TAO's Response:	<p>“Maybe.”</p> <p>“I am currently not participating in any such programs. During the last 3 years, in 2019 I was a visiting professor at Nanjing University of Aeronautics and Astronautics in China (as reported in my 2019 UVa annual report), and in summer and winter 2019, I visited there for two weeks and attended 2 conferences in China and Japan. This visiting professor position was a 3-year plan (01/01/2018 - 12/31/2020) and it was stopped after 2019 due to the pandemic.”</p>
True Answer:	<p>The investigation has revealed that TAO received compensation in the form of cash, research funding, honorific titles, career advancement opportunities, promised future compensation, and other forms of payment beginning in approximately October 2011. Based on the information detailed herein, the FBI believes TAO likely continued to receive such benefits into the three-year period responsive to this question. An example of such supporting evidence includes the letter of recommendation sent by TAO and dated February 1, 2019 wherein he self-identifies as a TTP Professor at NUAA.</p> <p>Further, TAO’s response inaccurately classifies the nature of his work as a visiting professorship. Per UVA policy PROV-009, a visiting appointment is “[a]n appointment at another institution or organization for a short term, usually one year or less, during which time the faculty member is on leave from the University.” Further, UVA policy states, “If a fulltime member of the University faculty wishes to accept an academic or administrative position at another institution or organization, he or she will be required to resign from the University of Virginia faculty.” Here, TAO continued his full-time employment with UVA during the purported visiting professorship at NUAA and extended the alleged position beyond the permissible time bounds identified in the policy. TAO did not resign from his position at UVA, as required under the policy, when he accepted the position at NUAA.</p>

3. *UVA Asked TAO to Clarify His Response and TAO Denied TTP Affiliation, Denied Having a Written Contract with NUAA, and Denied Receiving Any Compensation Exceeding \$5,000*

94. On January 18, 2022, UVA followed up with **TAO** via email to clarify if **TAO**'s claimed visiting professorship was associated with a Talent Plan. **TAO** replied via gt9s@class6.ee.virginia.edu that "My being a visiting professor was not associated with a talent plan." **TAO** also stated that he did not have a written contract with NUAA during this timeframe and his compensation did not exceed \$5,000. As detailed above, the investigation has revealed communications between **TAO** and Chinese-based individuals at NUAA that show that his statement to UVA about his NUAA compensation was false or misleading.

95. On February 9, 2022, UVA followed up with **TAO** again via email. UVA asked **TAO** to confirm that none of the other NSF criteria referenced in the EAD applied to **TAO** since his *first* visit to Nanjing, aside from the conference presentations that **TAO** noted. **TAO** confirmed and responded, "Yes."

96. **TAO**'s efforts to limit his reported involvement at NUAA to conference attendance is significant to the FBI because it is consistent with **TAO** seeking to limit his admissions to permissible activities to avoid further scrutiny. As detailed above, this investigation has revealed communications between **TAO** and Chinese-based individuals at NUAA showing that these statements to UVA are false; **TAO** was recruited to NUAA starting in 2009 as a Changjiang Scholar and became a TTP member in 2011.

K. Overview of TAO's Federal Grant History and Examples of his Failure to Disclose NUAA and TTP Affiliations and Foreign Grant Funding

97. Prior to **TAO**'s known affiliation with NUAA, he was awarded numerous grants from USG funding agencies as a UVA researcher. **TAO**'s grant award history includes funding from U.S. Air Force, U.S. Army, U.S. Navy, Defense Advanced Research Projects Agency (DARPA), NASA, National Institutes of Health (NIH), and NSF.

98. Below are examples of instances where **TAO** applied for grant funding while affiliated with NUAA as a TTP professor, but failed to disclose his affiliations, employment relationship, contractual obligations, and Chinese-based funding support to USG funding agencies:

Funding Entity	Proposal Number	Date Submitted	Title of Project	Funding Requested	Project Duration
NSF	1408524	November 8, 2013	<i>Adaptive Multi-Design Integration based Control Techniques for Multi-Fault Accommodation</i>	\$338,238	36 months
NSF	1509704	November 3, 2014	<i>Adaptive Fault Accommodation Based Resilient Control Techniques</i>	\$347,503	36 months
NASA	16-16ESI-0059	July 1, 2016	<i>Resilient Control Systems for Spacecraft with Uncertain Faults</i>	\$373,983	36 months
NASA	NNH17Z OA001N-1	On or about June, 30, 2017	<i>Resilient Control Techniques for Robust Autonomous Spacecraft Navigation</i>	\$444,727	36 months
NSF	1849188	On or about July 31, 2018	<i>S&AS: FND: Towards an Intelligent Urban Air Transportation Network</i>	\$600,000	36 months

99. Each of the above applications did not include, but should have included, at least:

- Organizational affiliations: **TAO** had teaching and research commitments, research funding, salary support, and a commitment to the TTP with NUAA.
- Current and pending support: **TAO** had a grant from the National Science Foundation of China (NSFC), providing 800,000 RMB (\$126,000) for a project running from January 2014 through December 2017. **TAO** was provided a laboratory and office space at NUAA, as well as a second grant of

2,900,000 RMB (\$455,000) by NSFC for a project running from January 2016 through December 2020.

100. At the time of each proposal submission described in the chart above, **TAO** operated as an employee of NUAA conducting research on behalf of the PRC to fulfill his obligations as a TTP member. Below is a graphic that illustrates, in summary fashion, the overlapping research activity by **TAO** from 2006 to 2020. In the graphic, U.S.-based funds and dates are highlighted in blue and China-based funds and dates are highlighted in red:



L. TAO is the Inventor on Nine Chinese Patent Applications, But Denied Holding Any Patents to UVA

101. In 2021, UVA Licensing and Ventures Group (LVG) conducted a patent check. Upon completion, it was determined that **TAO** has not filed any patents naming him as an inventor during his 29-year tenure at UVA.

1. TAO's Patents with NUAA

102. By comparison, open source search determined that NUAA filed at least nine different patents in China listing **TAO** as an inventor. Eight of the nine patents were later awarded, per open source research. Examples include:

Patent Description	Patent Date
The probabilistic self-adapting compensation method of satellite attitude control system	October 2017
A kind of fault tolerant control method and control system of drive lacking Rigid-body System	March 2018
A kind of method for building up of model for the bullet train lengthwise movement containing interference	September 2017
Bullet train actuator adaptive failure compensates location tracking method	January 2018
A kind of self-adapting compensation method of satellite attitude control system actuator hardover failure	July 2018
A kind of Adaptive Compensation Control Method of non-minimum phase flight control system actuator sustained intermittent failure	January 2019
Train suspension system fault diagnosis and fault-tolerant control method based on dynamic actuator	February 2017
Fault-tolerant control method and system of under-actuated rigid body system	March 2018
Self-adaptation compensation method for uncertainty of drive signs of actuator of satellite attitude control system	October 2017

2. *Emails About TAO Seeking to Conceal His NUAA Affiliation on a Patent*

103. On August 28, 2017, **TAO** received an email via gang_tao06@yahoo.com from Mao Zehui at zehuimao@nuaa.edu.cn. Mao informed **TAO** that Mao's and other students' plan to translate their Institute of Electrical and Electronics Engineers (IEEE) rejected paper and transform it into a patent. (Based on the sender's email address and the context of the communications, I believe Mao is likely a student of **TAO**'s at NUAA.) In response, **TAO** wrote that he agreed this is how they should move forward. **TAO** added, however, he does not want to be included. Mao wrote back and suggested they can still add **TAO**, but exclude his affiliation with institutions. **TAO** agrees to be added as long as it did not show any affiliated unit.

3. *TAO's UVA Patent Policy Agreements*

104. Upon accepting employment with UVA in June 1992, **TAO** signed UVA's "Patent Policy Agreement" on June 16, 1992. The agreement obligates **TAO** to disclose, assign, and cooperate with the university regarding any inventions that is the product of his university research. "University research" is defined in the patent agreement in the following fashion:

"...research and related activities by any person a) which are related in any way to duties or responsibilities for which he has been compensated either by or through the University or b) for which facilities owned, operated or controlled by the University are used."

105. On January 3, 2019, **TAO** electronically signed a revised UVA patent agreement which states the above and includes the following terms (emphasis added):

As a condition of employment or other involvement in research and/or related activities using University facilities and resources ("University research"), **I acknowledge** my acceptance of the University of Virginia Patent Policy, **and do hereby assign to** The Rector and Visitors of **the University of Virginia** all of my ownership, right, title and interest in **any discovery or invention that is the product of my University research, including** without limitation **any patent** and other intellectual property rights arising under U.S. or any other law, whether I acquired those rights before signing this Agreement or acquire them in the future.

I further agree to fulfill my obligations of disclosure and cooperation in the patenting and commercial development of any such discovery or invention that is the product of University research. **I have no consulting contracts or other contractual obligations to any third party, organization, or corporation** containing provisions regarding rights in inventions that are, or could be reasonably construed to be, **in conflict with this agreement**. I will not enter into any agreement in the future creating patent or other intellectual property obligations that conflict with this agreement or University policy.

106. Eleven days after signing the above-described UVA patent agreement, NUAA filed for a new patent in China listing **TAO** as an inventor on January 14, 2019.²¹

107. On May 24, 2021, Liu Li at 2901107628@qq.com wrote to **TAO** at gang_tao06@yahoo.com, from the Beijing patent office asking if he has any upcoming patents to apply for. Liu said the technologies for **TAO**'s earlier patents were especially good and she can help get patents filed quickly in other countries as well including Cambodia, Hong Kong, Australia and other countries. This email is significant to the FBI because it shows **TAO** was recently engaged in discussions about past and future patents with Chinese based representatives. Meanwhile, UVA's files show no record of **TAO** applying for patents on behalf of UVA.

M. UVA Interviews

108. During this investigation, the FBI interviewed numerous UVA representatives regarding the scope of permissible external activities, conflict of interest and commitment disclosure requirements, patent policies, grant submission and funding procedures, and other topics applicable to UVA researchers. The FBI also inquired regarding **TAO**'s activities and disclosures to UVA during his tenure. Through these interviews, the FBI learned that **TAO** successfully concealed the true scope and duration of **TAO**'s external activities, commitments, and financial engagements from UVA. Facts and information gleaned through these interviews are detailed below.

*1. UVA Witness Details the Compliance Policies Subverted by **TAO***

109. Kelly Hochstetler, the Director of Research Regulatory Affairs under the Office of the Vice President for Research (VPR), was interviewed on November 17, 2021. Hochstetler's role at UVA includes, but is not limited to, overseas export and sanctions compliance, and oversight of UVA's foreign influence effort. Below is a summary of information provided by Hochstetler.

²¹ This patent was described as: "A kind of Adaptive Compensation Control Method of non-minimum phase flight control system actuator sustained intermittent failure." UVA determined this patent relates to an area of research **TAO** was conducting at UVA, as detailed elsewhere herein.

110. UVA has a robust foreign influence program to make reviewers, researchers, support staff, and others aware of potential pitfalls regarding engagement with foreign entities. The program is also designed to ensure they are informed to facilitate compliance with applicable laws and regulations. Faculty members are advised of the mandatory nature of certain requirements as part of compliance programs. The VPR's Office works to mitigate potential foreign influence issues or concerns with respect to any faculty member conducting basic or advanced research. To do so, UVA considers a researcher's subject matter expertise, sources of funding, total portfolio, and required disclosures.

111. The following mechanisms are in place to require researchers to disclose outside activities or appointments other than those at UVA:

- a. Annual Performance Review: A researcher would disclose the above that is reviewed by their school's respective Department Chair;
- b. Annual Conflict of Interest (COI): A researcher would disclose any business ownership, income, and consulting activities;
- c. Grant Proposal Disclosures: United States Government (USG) sponsors require proposal submissions to disclose outside activities on the biography sketch, any current or pending support (outside of the USG), any collaborators and appointments outside of their current institution; and
- d. Updated Grant Disclosures: At the end of each fiscal year, an update is submitted to the granting agency that should disclose the above.

112. Hochstetler described how UVA must affirm the absence of any conflict of interest when a researcher submits a grant proposal. An authorized representative at the VPR's office must sign off on the submission to certify that UVA has not identified any potential conflicts of interest. The proposal should include an accurate accounting of the researcher's current and pending support, research collaborators, co-authors, and affiliations.

113. Hochstetler noted that UVA could only review a faculty member's COI disclosure(s) for potentially problematic conflicts if the potential conflict of interest was appropriately disclosed by the faculty member. If a faculty member fails to disclose a potential financial conflict of interest, it denies UVA the opportunity to conduct the required review, implement mitigation measures, or make an informed denial of the proposal.

114. Per Hochstetler, UVA also is concerned with any potential conflict of commitment by its faculty or researchers. During an employee's time under contract, it is expected that individuals' time will be directed towards UVA-related activities. Any outside activities requiring a significant time commitment should be reviewed and approved by the individuals' Department Chair, Dean, and Provost's Office to ensure the outside commitment is within policy.

115. Hochstetler confirmed the below regarding reportable outside commitments, income, and research:

- a. An appointment at an outside institution should be approved at the Provost level.
- b. If a financial conflict of interest of more than \$5,000 was not reported to UVA, the researcher is considered non-compliant with UVA policy and the university would want to know about the actual or potential conflict.
- c. If a researcher were conducting duplicate or aligned work at a foreign or domestic university, in addition to or furtherance of their research or activities at UVA, UVA would want to be informed of this activity.
- d. A visiting appointment/professor is for a limited time at an outside academic institution. A visiting appointment is not a compensated position, and the professor is not considered an employee of the host entity. A "paid" appointment with an outside entity is not a visiting appointment.
- e. Nine-month employment is considered August - May/June, and personnel are still considered employees during Fall and Christmas breaks.

2. *UVA Witness Describes Conflict of Commitment Policies, Which Were Violated by TAO*

116. Margaret J. Pena Harden, the Associate Vice Provost for Academic Administration under the Office of the Provost, was interviewed on December 6, 2021. Harden advised that when faculty members are hired, their role is laid out in the offer letters, to include policy and compliance obligations. UVA publishes a faculty handbook outlining its policies, which is distributed upon point of hire. When new policies are put in place and/or revised, they are typically distributed to UVA employees via email for notification purposes and available for future reference on the UVA website. Accountability for and implementation of these policies/policy changes starts with the Dean of the specific school, and is shared by faculty members.

117. Harden confirmed UVA policy states that a nine-month faculty member may hold appointments during the summer at their discretion, provided these appointments do not conflict in any way with any commitment to UVA, including summer grant support administered through the university.

118. Harden advised if the appointment is a visiting professorship (defined as anything exceeding one year) or a recurring commitment (e.g. in the summer months), UVA approval is required. This approval process starts with the chair of the particular department and dean of the associated school. If approved through these levels, the request comes to the Provost for approval. In connection, UVA seeks to review any appointment contracts to verify there is no conflict of commitment between the researcher's obligations to UVA and the proposed outside institution. An appointment over a year is a sabbatical and all appointments, both visiting and non-visiting, would need to benefit UVA, as well as the individual researcher.

119. UVA allows limited outside consulting by its researchers. Per policy, a researcher may engage in consulting activities one in seven days per week on average. However, Harden indicated this policy is distinct from UVA's policy pertaining to visiting professorships and/or appointments at outside institutions.

3. *UVA Witness Describes Conflict-of-Interest Policies Violated by TAO*

120. David Hudson, the Senior Associate Vice President for Research and UVA Research Integrity Officer, was interviewed on December 9, 2021. In Hudson's role, he is currently responsible for oversight of compliance, evaluating allegations of potential research misconduct and addressing conflicts of interest for UVA.

121. Per Hudson, UVA's conflict of interest (COI) reporting is completed on an annual basis. The conflict of interest process requires reporting ownership in outside entities, outside consulting, and disclosure of outside income exceeding \$5,000. COI reporting is designed to ensure the University is compliant with USG funding agency policy requiring identification and mitigation of potential conflicts of interest. COI reporting is completed via an online portal and faculty must attest to the completeness and accuracy of the information.

4. *UVA Witness Describes Patent Policy Agreements Violated by TAO*

122. Rob Merhige, Assistant Vice President for Commercialization and Compliance, Licensing and Ventures Group (LVG), under the Office of the Vice President for Research, was interviewed on January 10, 2022. Merhige supports a research portfolio with an annual volume exceeding \$300 million. Merhige's role at UVA also includes involvement in patent policy compliance and intellectual property and commercialization rights of the University.

123. Merhige stated that those involved with research at UVA have to sign the UVA Patent Policy agreement. UVA's patent policy has not changed much since the early 1990s; however, the agreement has changed over the past 4-5 years.

124. Grant funding proposals will not be submitted by UVA on behalf of the researcher unless a current, signed patent agreement and conflict of interest disclosure are completed.

125. When a researcher creates a patentable product / potential invention, notification should be submitted to the University. To do so, a researcher accesses the LVG website and completes an intake form describing the invention. Once submitted, a licensing associate is

assigned to follow up with the researcher for further detail regarding the potential invention to determine if patentable. UVA's patent agreement asserts UVA owns the rights to any potential invention related in any way to a UVA researcher's work at UVA. LVG conducts reviews of inventions to determine if they are related to a researchers work at UVA.

126. Merhige was shown **TAO's** UVA EAD, Question 6, which asked, "During the period of your employment at UVA, have you been named as an inventor on any patent or patent application other than those submitted on UVA's behalf by the LVG?" TAO answered, "No."

127. Merhige reviewed nine patents submitted in China listing **TAO** as an inventor. Based on this review, Merhige advised **TAO** should have answered the previously noted EAD question as "yes" and provided more detail for UVA's review. Merhige conducted a relatedness review of all nine patents and indicated that each would be considered related to **TAO's** UVA research. Merhige was unable to identify any valid reason why **TAO** did not submit these patents through UVA LVG, aside from an intentional concealment effort.

N. TAO's Recent Efforts to Conceal His NUAA Affiliation

128. FBI investigation determined TAO's NUAA internet profile began to diminish. In December 2018, **TAO's** NUAA website biography page listed him as a TTP member since 2011, NUAA Professor, Chinese patent holder, and provided his Yahoo email account. As of September 2019, the same website only listed **TAO's** name. By June 2020, **TAO's** NUAA website no longer existed.

129. The FBI's review of **TAO's** email communications also revealed efforts to conceal **TAO's** TTP and NUAA affiliations. On April 25, 2020, **TAO** at gang_tao06@yahoo.com received an email from Liu Yingna at 2292632160@qq.com of Beijing Aiolixing International Intellectual Property Services Co. Ltd., asking **TAO's** team to respond to the evaluation of its patent application. **TAO** forwarded the email to Wen at wenliyan8710@163.com, stating (emphasis added): "**FYI., Please take my name from the author list of patents. UVA does not like to see it. Thanks! gt**".

130. On August 13, 2020, **TAO** sent an email via gang_tao06@yahoo.com to Zhao Dong of NUAA advising that two papers submitted for publishing list **TAO's** affiliation as NUAA. **TAO** asks Zhao Dong to contact the publishers to correct this error as it can cause some serious issues for **TAO**.

131. On August 14, 2020, Zhao Dong at dongzh@nuaa.edu.cn wrote to the Editor-in-Chief stating my Co-Author (**TAO**) requests to modify his affiliation because it can cause serious issues for him. Afterwards, Zhao Dong forwarded the email to **TAO** via gang_tao06@yahoo.com and confirmed he made the request. **TAO** responded via email and advised the publisher -- not the Editor-in-Chief -- can make the requested change. **TAO** asked to be copied on the next email to the publisher and wanted to see the draft before it was sent. Then, Zhao sent a draft email to **TAO**. The draft email identified the issue as urgent and requested help modifying the listed affiliations to prevent causing serious issues for **TAO**. **TAO** responded to the draft proposal and was copied on its submission. On August 15, 2020, the editor responded via email and advised the requested change would be made by the publisher.

132. On August 17, 2020, Zhao Dong at dongzh@nuaa.edu.cn wrote to **TAO** via gang_tao06@yahoo.com. Zhao advised the aforementioned change would be made and there was a similar mistake on another paper. Zhao asked if he should submit the same request. **TAO** responded, "wait until she finishes the first one."

133. On August 28, 2020, **TAO** sent an email via gang_tao06@yahoo.com to Zhao at dongzh@nuaa.edu.cn. **TAO** asked if the change has been completed yet and Zhao replied that it had not been done yet and he just checked the website.

134. On September 24, 2020, **TAO** sent another email via gang_tao06@yahoo.com to Zhao at dongzh@nuaa.edu.cn. Once again, **TAO** asked Zhao to check and, if not changed, send a reminder. Zhao replied that the "IJC" paper was updated, but the "JFI" paper was not. Zhao requested permission to send the same request to "IJC" again for another paper. **TAO** replied thanking Zhao and provided approval to submit the additional request. **TAO** said, "You know

GREENE AFF. IN SUPPORT OF APP. FOR SEARCH WARRANTS

who to contact.” Zhao replied that the second paper was modified and he will be send another request to the editor of “IJC.”

1. *Incriminating Communications Between TAO and His NUAA Assistant*

135. On December 2, 2020, Wen LiYan was stopped by U.S. Customs and Border Protection (CBP), while departing the United States for an international flight to Shanghai, China. Prior to her departure, she was an international student at UVA studying under **TAO**. Prior to coming to UVA, Wen was working on her Ph.D. in the field of Adaptive Control at NUAA. As described above, Wen and TAO communicated regularly via TAO’s Yahoo email account regarding his NUAA professorship and TTP affiliation. These emails included discussions and direction regarding the movement of TAO’s Chinese based funds provided through NUAA. These emails appear to indicate that Wen functioned as his NUAA-based student and assistant.

136. Wen was interviewed when stopped by CBP. During the interview Wen described her background, studies, research areas and contacts. Wen identified **TAO** as her U.S. advisor and claimed to have met him at a Chinese Control Conference in either 2009 or 2012. Wen further claimed that she contacted him after locating his information on his website and he agreed to serve as her advisor in 2015. Wen provided a limited explanation of her relationship with **TAO**, which did not include disclosure of their common NUAA affiliation or her role as his NUAA-based assistant. Instead, Wen detailed coming to the U.S. to conduct adaptive control research under **TAO** and described asking him for advice on submitting her research for journal publication. In connection with her interview, CBP seized and imaged Wen’s digital devices. Wen was then released from secondary inspection and boarded her flight to China.

137. Following the CBP interview, Wen and **TAO** communicated via email. On December 3, 2020, **TAO** sent an email via gang_tao06@yahoo.com to Wen LiYan at wenliyan8710@163.com. **TAO** advised Wen that he got the email Wen sent when she boarded the flight and that Yang Shaohua called **TAO** already. **TAO** was aware of the situation and he is glad Wen arrived safely. Wen replied that she has checked into the quarantine hotel in Shanghai

and that **TAO** and his wife can rest assured. Wen has borrowed a laptop from a new friend she met during her trip. Wen tells **TAO** not to reply. On December 4, 2020, **TAO** replies that he has asked Yang Shaohua to bring Wen a verbal message and asks if Wen has a new phone. Wen replies “okay” and that her family will deliver her a new phone today. **TAO** responds that the thing Yang Shaohua told Wen needs to be done sooner rather than later. Wen replied, “OK.”

138. A second search warrant was issued on June 15, 2021 for the Yahoo! email account gang_tao06@yahoo.com utilized by **TAO**. This email account had shown to be **TAO**’s primary email account for his correspondence with NUAA and his TTP affiliation. Upon receipt and review of the search return, it was determined that **TAO** had ceased use of this email account around January 2021.

139. Based on the investigation to date, your Affiant believes **TAO** and his NUAA associates have transitioned to more secure communications platforms, such as WeChat,²² to facilitate the Target Offenses. The FBI has determined that many of **TAO**’s NUAA associates utilize WeChat. As examples, Wen identified WeChat ID’s during her CBP interview for her and her boss, Bin Jiang, and agents located a WeChat ID for **TAO** during the course of reviewing **TAO**’s UVA email.

140. Records collected in the course of the investigation show **TAO** has made limited references and disclosures regarding his engagement with NUAA to his employer and NSF. The NUAA references are located within **TAO**’s sabbatical request in 2010, UVA annual reports, and NSF year-end research reports. None of these references, however, provides accurate and/or fulsome accounts of the scope and duration of **TAO**’s extended employment with NUAA. For example, **TAO** submitted UVA annual reports regarding his research, teaching, and collaborative work to the Department Chair of his school. The FBI obtained his annual reports from 2014 to 2021. In at least some of these reports, **TAO** reported collaborating with NUAA and receiving

²² WeChat is Chinese multi-purpose instant messaging, social media, and mobile payment app. WeChat provides secure text messaging, hold-to-talk voice messaging, video conferencing, and other features.

Chinese grant funding in connection with his purported *summer* visiting professorship at NUAA. The reports fail to reference **TAO** has repeated travel to NUAA to conduct PRC-funded research activities during UVA's nine-month faculty academic year. The reports do not disclose **TAO** has been a NUAA professor for more than a decade. Further, these deficient acknowledgements are consistent with **TAO** understanding the permissible bounds of external collaboration and intentionally crafting disclosures to avoid scrutiny. Significantly, **TAO** did not reference any NUAA affiliations or foreign grant funding in his UVA Conflict of Interest Disclosures or in his NSF grant funding proposal application or supporting CV.

141. The investigation has also shown that **TAO** has multiple Tracphones associated to him. The cellphone numbers were initially identified during an agent's review of Accurint, a law enforcement database, for numbers affiliated with **TAO**. Legal process was submitted to determine the subscriber of the known Tracfone numbers. However, the response to legal process has shown that the user did not provide identifying information. Then, agents learned from UVA that one of these Tracfone numbers had been provided as a recent contact number for **TAO**. Based on this information, I believe **TAO** is likely the user of one or more Tracphones. Through my training and experience, I have learned that "pay as you go" phones (such as Tracfone) allow the user to obfuscate their identify, which can be purposefully done to thwart detection by law enforcement.

O. TAO's Use of the TARGET OFFICE and TARGET RESIDENCE for Work

142. As detailed in this section and elsewhere in this Affidavit, FBI has developed information supporting probable cause that **TAO** uses both the **TARGET OFFICE** and **TARGET RESIDENCE** in connection with the Target Offenses. According to UVA IP records, on April 19, 2022, originating IP address 199.111.226.1 logged in with **TAO**'s email credentials as gt9s@virginia.edu. The IP 199.111.226.1 was registered to the University of Virginia. Per UVA, IP access history indicates that **TAO** used the on campus wired networks. In particular, IP prefix of 199.111 is indicative of the user being physically present on the campus grounds and the

wireless connection node associated with **TAO**'s access is located near the **TARGET OFFICE**. These facts are consistent with email/account access occurring from within **TAO**'s office (i.e., the **TARGET OFFICE**) and it is also consistent with **TAO** using the **TARGET OFFICE** in connection with the Target Offenses.

143. According to UVA IP records, on April 20, 2022, originating IP address 73.251.38.33 logged in with **TAO**'s UVA email credentials as "gt9s" through multifactor authentication (MFA). The IP 73.251.38.33 was registered to Comcast Cable Communications, LLC, which means Comcast is the service provider affiliated with the IP address. The same IP address (73.251.38.33) was also located in review of login credentials for **TAO**'s Yahoo! email account gang_tao06@yahoo.com. This IP address information is significant to the investigation for several reasons. First, the fact this IP address was used in connection with accessing **TAO**'s personal email address used to communicate with his suspected co-conspirators *and* his UVA account shows that **TAO** likely uses his home internet service provider (Comcast) to work remotely for NUAA *and* UVA. Thus, evidence of the Target Offenses will likely be found at the **TARGET RESIDENCE**.

144. Further, the FBI has determined that since the pandemic began **TAO** has worked remotely, as well as on campus at UVA. This information was gathered through a combination of IP access records, interviews of UVA employees about remote work during the pandemic, and surveillance efforts, as well as other sources. Review of **TAO**'s fall 2021 teaching schedule on his UVA website shows that **TAO** did not hold lecture or office hours on Fridays. However, review of UVA login records show repeated access to **TAO**'s UVA account on Fridays. Legal process has also shown that **TAO** has accounts associated with Comcast. This activity is consistent with **TAO**'s use of his residence (i.e., the **TARGET RESIDENCE**) as a place to conduct work activity.

145. Surveillance observations are also consistent with **TAO** using both the **TARGET RESIDENCE** and **TARGET OFFICE**. For example, on April 26, 2022, the FBI observed **TAO**

GREENE AFF. IN SUPPORT OF APP. FOR SEARCH WARRANTS

depart his residence at 1850 River Inn Lane, Charlottesville, Virginia (**TARGET RESIDENCE**), and drive to UVA. **TAO** entered the Engineering Department building Thornton Hall, where his office (**TARGET OFFICE**) is located.²³

P. Summary Regarding Probable Cause for Target Offenses

146. This Affiant believes there is probable cause that **TAO** committed the offenses of Making a False Statement, in violation of 18 U.S.C. § 1001; Wire Fraud, in violation of 18 U.S.C. § 1343; and Conspiracy, in violation of 18 U.S.C. § 371. **TAO** is a participant multiple CTP's—the Thousand Talent Plan—and a Changjiang Scholar. As a CTP member, **TAO** received funds from the PRC through research funding and salary from NUAA. While receiving funding from the PRC, **TAO** utilized his position as a professor at UVA to apply for federal grants from the NSF to fund his research. On November 3, 2014, **TAO** applied for a federal grant through NSF requesting approximately \$347,503 for a grant running from August 1, 2015 to July 31, 2018. The NSF grant application and instructions specifically direct applicants to disclose (a) organizational affiliations; (b) all current and pending support from other sources, including foreign sources and pending applications; and (c) a list of all past appointments. On the grant application with NSF, **TAO** failed to disclose his participation in the Thousand Talent Plan and his appointment as a Changjiang Scholar, his salary from and duties with NUAA, and his ongoing grant funding from the National Science Foundation of China (2014-2017). **TAO** had applied for and received additional funding from the National Science Foundation of China (2016 – 2020) while conducting his research for UVA and the NSF failing to disclose to either entity that he was doing so; and **TAO** had recently extended his TTP affiliation with a three-year commitment just before applying for the NSF grant.

147. Representatives from both UVA and NSF have confirmed the materiality of these false statements and omissions, namely, that these false statements and omissions were capable of

²³ **TAO** was not observed entering his office while in Thornton Hall because surveillance agents did not follow him into the building to avoid possible detection.

influencing UVA's decision to submit the grant application to NSF and capable of influencing NSF's decision to award the grant. During his tenure as an NUAA employee, **TAO** repeatedly carried thousands of dollars in cash into the United States, while staying under the reporting threshold. He also directed NUAA associates to carry cash into the U.S. to deliver to him and directed them to lie about the end destination if questioned by CBP. **TAO** has at least one undeclared foreign bank account that likely serves as a repository for overseas funds.

Q. Summary Regarding Probable Cause to Search the TARGET RESIDENCE, TARGET OFFICE, Cellular Devices and Associated Vehicles

148. **TAO** resides at 1850 River Inn Lane, Charlottesville, Virginia 22901 (**TARGET RESIDENCE**). This address has been identified as **TAO**'s residence through multiple sources, including employment records, banking records, and physical surveillance by law enforcement. As detailed herein, the investigation has revealed information and evidence to establishing probable cause that evidence of the Target Offenses will be found through search of the **TARGET SUBJECTS**.

149. According to the NSF grant proposal, **TAO** stated he would use his office and available laboratory (i.e., the **TARGET OFFICE**) to conduct the research listed in the NSF grant proposal. This is consistent with **TAO** using, storing information, and communicating with others in connection with the Target Offenses via the **TARGET OFFICE** and likely his cellphone, **TARGET CELLPHONE 1**.

150. According to UVA, since the start of the pandemic **TAO** has had the ability to work remotely from his residence at 1850 River Inn Lane, Charlottesville, Virginia 22901 (**TARGET RESIDENCE**) and/or from his office at UVA located at Thornton Hall, Office E311, 351 McCormick Road, Charlottesville, VA 22904 (**TARGET OFFICE**). I know from training, experience, and common sense that individuals often keep personal items, as well as records related to their work/research in their offices. On the same basis, I also know that many people often use their work computers for personal use, such as checking bank accounts, arranging travel, etc.

Here, I believe that evidence of the Target Offenses, including, but not limited, suspected overlapping research will be found in the both the **TARGET RESIDENCE**, **TARGET OFFICE**, and within vehicles used by **TAO** to travel to and from these locations (i.e. **TARGET VEHICLE 1** and **TARGET VEHICLE 2**.)

151. As detailed throughout this Affidavit, this investigation has revealed information supporting probable cause that **TAO** uses **TARGET CELLPHONE 1** in connection with the commission of the Target Offenses. For example, email search warrants show **TAO** has used his cellphone (**TARGET CELLPHONE 1**) to communicate with NUAA associates via email to conduct follow-up communications. As an example, on January 6, 2019, **TAO** sent an email via gang_tao06@yahoo.com to Wen LiYan at wenliyan8710@163.com. The email was in Mandarin with a spreadsheet attached titled “2017____.xls.” **TAO** forwarded an email from numerous NUAA associates to Wen and in the body of his email it states, “Sent from my iPhone.” I know from training, experience, and common sense that this message is often appended to messages sent via iPhones, absent user modifications to their settings.

152. The investigation has shown that **TAO**’s wife is witting of his activities to include the conversion and transfer of Chinese assets to the U.S. using additional bank accounts not fully identified, utilizing **TARGET CELLPHONE 2**. As noted previously **TAO**’s wife had been instructed to check a Huaxia bank app on her cellphone to verify a specific transaction. **TAO**’s wife had also contacted his associate Wen LiYan to convert Chinese RMB to USD for **TAO** to carry back to the U.S. Based on these facts, as well as others, I believe evidence of the Target Offenses will be found on **TARGET CELLPHONE 2**.

153. The investigation has also revealed that **TAO** uses a car to travel to and from work. As recently as April 2022, investigators observed **TAO** drive **TARGET VEHICLE 2** from his place of employment to his residence. I know from training, experience, and common sense that people often transport work-related items, such as laptops, records, and other data, in their vehicles. As such, I believe evidence of the Target Offenses is likely to be found in hardcopy or

digital form in any vehicles available to **TAO**. Surveillance of **TAO** has shown that **TARGET VEHICLE 1** has been parked in **TAO**'s garage. However, both vehicles are registered in **TAO**'s name. Further, I know that married couples often share vehicles and/or ride in one another's vehicles. In connection, I know that individuals often travel with or leave their cellphones in their vehicles. As such, I believe evidence of the Target Offenses may be found in either vehicle regardless of whether **CHEN** or **TAO** is the primary user of **TARGET VEHICLE 1** or **TARGET VEHICLE 2**. Further, I know that individuals often carry their cellphones with them on their person or within a briefcase, bookbag, or purse. As such, I believe there is probable cause to search **CHEN** or **TAO** for digital devices, such as **TARGET CELLPHONE 1** or **TARGET CELLPHONE 2**, or other physical evidence related to the Target Offenses. Further, I know that cellphones are often kept on one's person or within one's purse, backpack, or briefcase, which supports probable cause to search **TAO** and **CHEN**.

154. Based on my training and experience conducting similar investigations in other jurisdictions and the training and experience of other agents with whom I have consulted, I know that:

- a. Individuals seeking or holding secondary employment opportunities often keep drafts and final versions of applications, proposals, contracts, reports and other communications with actual or potential employers, grant opportunities, or other programs. From my training and experience, I know that such records can help establish how, when, and why a defendant pursued and worked on those opportunities, and show the defendant's motivation and intent to deceive.
- b. Individuals often maintain financial records and receipts tracking things like personal expenses, reimbursements, and income. They also maintain financial records relating to the use of third-party funds, such as those obtained through grants, talent programs, or other contractual arrangements similar to those of **TAO**. In wire fraud investigations, evidence relating to these financial

transactions of an individual who devised and/or participated in a scheme to defraud often leads to the discovery of funds and assets subject to forfeiture, and/or provide evidence of the defendant's motivation and intent to deceive.

c. Individuals who travel on behalf of employers or other third parties often maintain records of travel costs, itineraries, reimbursement forms, and passports that answer "what, when, where, and why" questions relating to a scheme to defraud.

d. Individuals also typically maintain at least some of these records in electronic format so they may be easily located, edited, copied, and transmitted. Individuals commonly maintain budgets, calendars, travel information, draft documents, and photographs in electronic format on their computers and/or cell phones. I know from my training and experience that such information can provide evidence of wire fraud and assist agents in identifying potential witnesses and establishing a defendant's motivation and intent to deceive.

R. Technical Terms

155. Based on my training and experience, I use the following technical terms to convey the following meanings:

a. Internet: The Internet is a global network of computers and other electronic devices that communicate with each other. Due to the structure of the Internet, connections between devices on the Internet often cross state and international borders, even when the devices communicating with each other are in the same state.

b. Internet Protocol address (or simply "IP address) is a unique numeric address used by computers on the Internet. An IP address looks like a series of four numbers, each in the range 0-255, separated by periods (e.g., 121.56.97.178). Every computer attached to the Internet must be assigned an IP address so that Internet traffic sent from and directed to that computer may be directed properly from its source to its destination. Most Internet service providers control a range of IP addresses. Some

computers have static—that is, long-term—IP addresses, while other computers have dynamic—that is, frequently changed—IP addresses.

c. Log Files are records automatically produced by computer programs to document electronic events that occur on computers. Computer programs can record a wide range of events including remote access, file transfers, logon/logoff times, and system errors. Logs are often named based on the types of information they contain. For example, web logs contain specific information about when a website was accessed by remote computers; access logs list specific information about when a computer was accessed from a remote location; and file transfer logs list detailed information concerning files that are remotely transferred.

d. Storage Medium is any physical object upon which computer data can be recorded. Examples include (but not limited to) hard disks, RAM, floppy disks, flash memory, CD-ROMs, and other magnetic or optical media. Storage medium: A storage medium is any physical object upon which computer data can be recorded. Examples include hard disks, RAM, floppy disks, flash memory, CD-ROMs, and other magnetic or optical media.

S. Computers Electronic Storage and Forensic Analysis

156. As described above and in Attachment B, this application seeks permission to search for records that might be found at the **SEARCH TARGETS** described in Attachments A-1 through A-8. One form in which the records might be found is data stored on a device's hard drive or other storage media. Thus, the warrant applied for would authorize the seizure of electronic storage media or, potentially, the copying of electronically stored information, all under Rule 41 (e)(2)(B).

157. I submit that if a computer or other storage medium is found at/in/on the **SEARCH TARGETS** described in Attachments A-1 through A-8, there is probable cause to believe relevant records will be stored on that computer or storage medium, for at least the following reasons:

a. Based on actual inspection of other evidence related to this investigation, including emails, attachments, and documents, I am aware that electronic devices were likely used to generate, store, revise, sign, and print documents used in the fraud scheme.

b. Similarly, files that have been viewed via the internet are sometimes automatically downloaded into a temporary internet directory or "cache."

c. Based on my knowledge, training, and experience, I know that computer files or remnants of such files can be recovered months or even years after they have been downloaded onto a storage medium, deleted, or viewed via the Internet. Electronic files downloaded to a storage medium can be stored for years at little or no cost. Even when files have been deleted, they can be recovered months or years later using forensic tools. This is so because when a person "deletes" a file on a computer, the data contained in the file does not actually disappear; rather, that data remains on the storage medium until it is overwritten by new data.

d. Therefore, deleted files, or remnants of deleted files, may reside in free space or slack space—that is, in space on the storage medium that is not currently being used by an active file—for long periods of time before they are overwritten. In addition, a computer's operating system may also keep a record of deleted data in a "swap" or "recovery" file.

e. Wholly apart from user-generated files, storage media contain electronic evidence of how a computer or other electronic device has been used, what it has been used for, and who has used it. To give a few examples, this forensic evidence can take the form of operating system configurations, artifacts from operating System or application operation, file system data structures, and virtual memory "swap" or paging files. Computer users typically do not erase or delete this evidence, because special software is typically required for that task. However, it is technically possible to delete this information.

f. Additionally, information stored within a cellular telephone may indicate the geographic location of the cell phone and user at a particular time. Stored electronic data also may provide relevant insight into the telephone owner's state of mind as it relates to the offense under investigation. Information in a cellular telephone, for example, may indicate the owner's motive and intent to commit a crime (e.g., communications relating to the crime) or consciousness of guilt (e.g., deleting communications in an effort to conceal them from law enforcement).

158. Further, I know that when an individual uses a computer/s to submit false statements or caused to be submitted interstate wires, the individual's computer/s will generally serve both as an instrumentality for committing the crime, and also as a storage medium for evidence of the crime. From my training and experience, I believe that a computer(s) used to commit a crime of this type may contain data that is evidence of how the computer was used; data that was sent or received; notes as to how the criminal conduct was achieved; records of Internet discussions about the crime; and other records that indicate the nature of the offense.

159. Necessity of seizing or copying entire computers or storage media. In most cases, a thorough search of a premises for information that might be stored on storage media often requires the seizure of the physical storage media and later off-site review consistent with the warrant. In lieu of removing storage media from the premises, it is sometimes possible to make an image copy of storage media. Generally speaking, imaging is the taking of a complete electronic picture of the computer's data, including all hidden sectors and deleted files. Either seizure or imaging is often necessary to ensure the accuracy and completeness of data recorded on the storage media, and to prevent the loss of the data either from accidental or intentional destruction. This is true because of the following:

a. The time required for an examination. As noted above, not all evidence takes the form of documents and files that can be easily viewed on site. Analyzing evidence of how a computer has been used, what it has been used for, and who has used it requires

considerable time, particularly when some of the files may be in Chinese, and taking that much time on premises could be unreasonable. As explained above, because the warrant calls for forensic electronic evidence, it is exceedingly likely that it will be necessary to thoroughly examine storage media to obtain evidence. Storage media can store a large volume of information. Reviewing that information for things described in the warrant can take weeks or months, depending on the volume of data stored, and would be impractical and invasive to attempt on-site.

b. Technical requirements. Computers can be configured in several different ways, featuring a variety of different operating systems, application software, and configurations. Therefore, searching them sometimes requires tools or knowledge that might not be present on the search site. The vast array of computer hardware and software available makes it difficult to know before a search what tools or knowledge will be required to analyze the system and its data on the Premises. However, taking the storage media off-site and reviewing it in a controlled environment will allow its examination with the proper tools and knowledge.

c. Variety of forms of electronic media. Records sought under this warrant could be stored in a variety of storage media formats that may require off-site reviewing with specialized forensic tools.

160. Nature of examination. Based on the foregoing, and consistent with Rule 41 (e)(2)(B), the warrant I am applying for would permit seizing, imaging, or otherwise copying storage media that reasonably appear to contain some or all of the evidence described in the warrant, and would authorize a later review of the media or information consistent with the warrant. The later review may require techniques, including but not limited to computer-assisted scans of the entire medium, that might expose many parts of a hard drive to human inspection in order to determine whether it is evidence described by the warrant.

161. Because several people share **TARGET RESIDENCE** as a residence, it is possible that it will contain storage media that are predominantly used, and perhaps owned, by persons who are not suspected of a crime. If it is nonetheless determined that it is possible that the things described in this warrant could be found on any of those computers or storage media, the warrant applied for would permit the seizure and review of those items as well.

VI. CONCLUSION

162. Based on the forgoing, I request that this Court issue the requested warrants for the **TARGET SUBJECTS** and respectfully submit that probable cause exists that evidence of the Target Offenses, as detailed in Attachments B, will be found in the locations described in Attachments A.

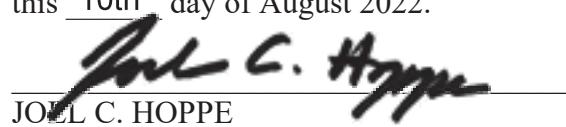
OATH

The information in this affidavit is true to the best of my knowledge and belief.

Respectfully submitted,

/s/Clifford Paul Greene
CLIFFORD PAUL GREENE
Special Agent
Federal Bureau of Investigation

Received by reliable electronic means and sworn
and attested to by telephone on
this 10th day of August 2022.


JOELL C. HOPPE
United States Magistrate Judge

ATTACHMENT A-1

TARGET RESIDENCE

The a single-family residence located at 1850 River Inn Lane, Charlottesville, Virginia 22901 (**TARGET RESIDENCE**), which is a three-story residence with a side-entry garage. The **TARGET RESIDENCE** includes the interior of the residence and garage, as well as any exterior areas such as the porch or exterior shed(s), and any vehicles parked in the driveway or within the garage. Below is an image of the front of the residence.



ATTACHMENT B-1

Information to be searched for and seized by Law Enforcement Personnel from the

TARGET RESIDENCE, as described in Attachment A-1:

All information that constitutes evidence and instrumentalities concerning violations of 18 U.S.C §§ 371 (Conspiracy), 1001(a)(2) (False statements to Government Agents or Agencies), , and 1343 (Wire Fraud) (collectively, the “Target Offenses”):

1. **RECORDS, DOCUMENTS, DATA AND INFORMATION:** Any records, documents, data, information, computer executable programs, email messages, correspondence, communications, and/or attachments that contain or related to the information described in the subsection below whether located in hard-copy or in electronic-format within any computer, cellphone, tablet device, or other electronic storage medium:

a. Applications, proposals, or contracts involving research grant funding, laboratory resources, research assistance, work-related travel funding, work-related reimbursements and/or employment involving: (1) Gang TAO (“TAO”) and any federal agency of the United States (including the National Science Foundation) or (2) TAO and the People’s Republic of China, the National Science Foundation of China, Nanjing Aeronautics and Astronautics University, and/or any other Chinese-based entities (collectively, “People’s Republic of China”);

b. Patents applications, patent awards, patent royalty payments, entity structures or other information related to the possession of intellectual property involving TAO, including, but not limited to those involving the following areas:

the probabilistic self-adapting compensation method of satellite attitude control system; a kind of fault tolerant control method and control system of drive lacking Rigid-body System; a kind of method for building up of model for the bullet train lengthwise movement containing interference; bullet train actuator adaptive failure compensates location tracking method; A kind of self-adapting compensation method of satellite attitude control system actuator hardover failure; a kind of Adaptive Compensation Control Method of non-minimum phase flight control system actuator sustained intermittent failure; train suspension system fault diagnosis and fault-tolerant control method based on dynamic actuator; fault-tolerant control method and system of under-actuated rigid body system; and self-adaptation compensation method for uncertainty of drive signs of actuator of satellite attitude control system;

c. Employment contract stipulations, proposals, or provisions involving **TAO** and the People's Republic of China, Thousand Talent Plan and/or ChangJiang Scholar Program;

d. Any payment, movement, or transfer of funds to/from or at the direction of **TAO** or **Lanlin Chen (CHEN)** via Alipay and Huaxia Bank or any other Chinese-based banking institution or application;

e. Information, records, or assets involving bank accounts under the control of **TAO** and/or **Chen**, assets exceeding a value of \$1,000, or the receipt of bulk cash;

f. **TAO**'s travel to or from the People's Republic of China, including reservation records, passports, and/or photographs of travel;

- g. Any presentations, lectures, research, or publications related to the People's Republic of China;
- h. Any information involving the following individuals and/or email addresses: Ruiyun Qi; ruiyun.qi@nuaa.edu.cn; Bin Jiang; binjiang@nuaa.edu.cn; Xing Yu; Gong Huajun; ghj301@nuaa.edu.cn; Yang Hao; haoyang@nuaa.edu.cn; Tan Chang; lovetanchang@163.com; Yang Hao; haoyang@nuaa.edu.cn; Wen LiYan; wenliyan8710@163.com; and any email address ending in @nuaa.edu.cn or ending in @163.com.
- i. Research conducted on behalf of/in connection with the People's Republic of China;
- j. Any records involving the receiving or sending of shipments, packages, or other items to/from China;
- k. **TAO**'s employment status, income, or expenses;
- l. Information regarding any student(s) attending Nanjing Aeronautics and Astronautics University or seeking sponsorship to serve as an international student from China and studying at the University of Virginia;
- m. Any logs, passwords, or other documentation showing access to or communications involving financial accounts/applications;
- n. Any logs, passwords, or other records involving the use of WeChat by **TAO** to communicate with Ruiyun Qi; Bin Jiang; Xing Yu; Gong Huajun; Yang Hao; Tan Chang; Yang Hao; Wen LiYan; or any identified student, employee or affiliate of Nanjing Aeronautics and Astronautics University;

- o. Research articles or journal publications written by **TAO** wherein he describes research, findings, and/or funding resources;
- p. Any other evidence indicating the state of mind or intent of **TAO** as it relates to the Target Offenses, including contextual information necessary to understand the evidence described in this attachment, which constitutes evidence of the Target Offenses; and
- q. The identities of individuals with access to the above-listed categories of information involving **TAO**;

2. **COMPUTER RELATED SEIZURES:** For any computer or storage medium whose seizure is otherwise authorized by this warrant, and any computer or storage medium that contains or in which is stored records or information that is otherwise called for by this warrant:

- a. Evidence of who used, owned, or controlled the computer or storage medium at the time the things described in this warrant were created, edited, or deleted, such as logs, IP addresses, routing information, methods of connection, registry entries, configuration files, saved usernames and passwords, documents, browsing history, user profiles, email, email contacts, “chat,” instant messaging logs, photographs, and correspondence;
- b. Evidence of software that would allow others to control or track the computer or storage medium, such as viruses, cookies, Trojan horses, and other forms of malicious software, as well as evidence of the presence or absence of security software designed to detect malicious software;
- c. Evidence of the lack of such malicious software;

- d. Evidence indicating how and when the computer or storage medium was accessed or used to determine the chronological context of computer access, use, and events relating to crime under investigation and to the computer user;
- e. Evidence computer user's state of mind as it relates to the crime under investigation; evidence of the attachment to the computer or storage medium of other storage devices or similar containers for electronic evidence;
- f. Evidence of counter-forensic programs (and associate data) that are designed to eliminate data from the computer or storage medium;
- g. Evidence of the times the computer or storage medium was used;
- h. Passwords, encryption keys, and other access devices that may be necessary to access the computer or storage medium;
- i. Documentation and manuals that may be necessary to access the computer or storage medium or to conduct a forensic examination of the computer or storage medium;
- j. Records of or information about Internet Protocol addresses used by the computer or storage medium;
- k. Records of or information about the computer or storage medium's Internet activity, including firewall logs, caches, browser history and cookies, "bookmarked" or "favorite" web pages, search terms that the user entered into any Internet search engine, and records of user-typed web addresses; and
- l. Contextual information necessary to understand the evidence described in this attachment.

3. OTHER PHYSICAL EVIDENCE:

- a. Any bulk cash, cashiers' checks, or other foreign currency with a value exceeding a U.S. currency value of \$1,000; and
- b. Passports.

4. DEFINITIONS

- a. As used above, the terms "records" and "information" includes all forms of creation or storage, including any form of computer or electronic storage (such as hard disks or other media that can store data); any handmade form (such as writing); any mechanical form (such as printing or typing); and any photographic form (such as microfilm, microfiche, prints, slides, negatives, videotapes, motion pictures, or photocopies).
- b. The term "computer" includes all types of electronic, magnetic, optical, electrochemical, or other high-speed data processing devices performing logical, arithmetic, or storage functions, including desktop computers, notebook computers, mobile phones, tablets, server computers, and network hardware.
- c. The term "storage medium" includes any physical object upon which computer data can be recorded. Examples include hard disks, RAM, flash memory, CD-ROMs, and other magnetic or optical media.
- d. As used above, the terms "records," "documents," "data" and "information" include all of the forgoing items of evidence in whatever form and by whatever means they may have been created or stored.

5. REVIEW OF ELECTRONIC MEDIA: This warrant authorizes a review of electronic storage media and electronically stored information seized or copied pursuant to this warrant in order to locate evidence, fruits, and instrumentalities described in this warrant. The review of this electronic data may be conducted by any government personnel assisting in the investigation, who may include, law enforcement officers and agents, attorneys for the government, attorney support staff, and technical experts. Pursuant to this warrant, the FBI may deliver a complete copy of the seized or copied electronic data to the custody and control of attorneys for the government and their support staff for their independent review.

ATTACHMENT A -2

TARGET OFFICE

The property to be searched is located at the University of Virginia in the Thornton Hall building and consists of Office E311. Office E311 is located at 351 McCormick Road, Charlottesville, VA 22904 (**TARGET OFFICE**) within a two-story brick building containing classrooms and offices. The exterior of office E311 has a label with the name Gang Tao.



ATTACHMENT B-2

Information to be searched for and seized by Law Enforcement Personnel from the

TARGET OFFICE, as described in Attachment A-2:

All information that constitutes evidence and instrumentalities concerning violations of 18 U.S.C §§ 371 (Conspiracy), 1001(a)(2) (False statements to Government Agents or Agencies), 1341 (Mail Fraud), and 1343 (Wire Fraud) (collectively, the “Target Offenses”):

1. **RECORDS, DOCUMENTS, DATA AND INFORMATION:** Any records, documents, data, information, computer executable programs, email messages, correspondence, communications, and/or attachments that contain or related to the information described in the subsection below whether located in hard-copy or in electronic-format within any computer, cellphone, tablet device, or other electronic storage medium:

a. Applications, proposals, or contracts involving research grant funding, laboratory resources, research assistance, work-related travel funding, work-related reimbursements and/or employment involving: (1) Gang TAO (“TAO”) and any federal agency of the United States (including the National Science Foundation) or (2) TAO and the People’s Republic of China, the National Science Foundation of China, Nanjing Aeronautics and Astronautics University, and/or any other Chinese-based entities (collectively, “People’s Republic of China”);

b. Patents applications, patent awards, patent royalty payments, entity structures or other information related to the possession of intellectual property involving TAO, including, but not limited to those involving the following areas:

the probabilistic self-adapting compensation method of satellite attitude control system; a kind of fault tolerant control method and control system of drive lacking Rigid-body System; a kind of method for building up of model for the bullet train lengthwise movement containing interference; bullet train actuator adaptive failure compensates location tracking method; A kind of self-adapting compensation method of satellite attitude control system actuator hardover failure; a kind of Adaptive Compensation Control Method of non-minimum phase flight control system actuator sustained intermittent failure; train suspension system fault diagnosis and fault-tolerant control method based on dynamic actuator; fault-tolerant control method and system of under-actuated rigid body system; and self-adaptation compensation method for uncertainty of drive signs of actuator of satellite attitude control system;

c. Employment contract stipulations, proposals, or provisions involving **TAO** and the People's Republic of China, Thousand Talent Plan and/or ChangJiang Scholar Program;

d. Any payment, movement, or transfer of funds to/from or at the direction of **TAO** or **Lanlin Chen (CHEN)** via Alipay and Huaxia Bank or any other Chinese-based banking institution or application;

e. Information, records, or assets involving bank accounts under the control of **TAO** and/or **Chen**, assets exceeding a value of \$1,000, or the receipt of bulk cash;

f. **TAO**'s travel to or from the People's Republic of China, including reservation records, passports, and/or photographs of travel;

- g. Any presentations, lectures, research, or publications related to the People's Republic of China;
- h. Any information involving the following individuals and/or email addresses: Ruiyun Qi; ruiyun.qi@nuaa.edu.cn; Bin Jiang; binjiang@nuaa.edu.cn; Xing Yu; Gong Huajun; ghj301@nuaa.edu.cn; Yang Hao; haoyang@nuaa.edu.cn; Tan Chang; lovetanchang@163.com; Yang Hao; haoyang@nuaa.edu.cn; Wen LiYan; wenliyan8710@163.com; and any email address ending in @nuaa.edu.cn or ending in @163.com.
- i. Research conducted on behalf of/in connection with the People's Republic of China;
- j. Any records involving the receiving or sending of shipments, packages, or other items to/from China;
- k. **TAO**'s employment status, income, or expenses;
- l. Information regarding any student(s) attending Nanjing Aeronautics and Astronautics University or seeking sponsorship to serve as an international student from China and studying at the University of Virginia;
- m. Any logs, passwords, or other documentation showing access to or communications involving financial accounts/applications;
- n. Any logs, passwords, or other records involving the use of WeChat by **TAO** to communicate with Ruiyun Qi; Bin Jiang; Xing Yu; Gong Huajun; Yang Hao; Tan Chang; Yang Hao; Wen LiYan; or any identified student, employee or affiliate of Nanjing Aeronautics and Astronautics University;

- o. Research articles or journal publications written by **TAO** wherein he describes research, findings, and/or funding resources;
- p. Any other evidence indicating the state of mind or intent of **TAO** as it relates to the Target Offenses, including contextual information necessary to understand the evidence described in this attachment, which constitutes evidence of the Target Offenses; and
- q. The identities of individuals with access to the above-listed categories of information involving **TAO**;

2. **COMPUTER RELATED SEIZURES:** For any computer or storage medium whose seizure is otherwise authorized by this warrant, and any computer or storage medium that contains or in which is stored records or information that is otherwise called for by this warrant:

- a. Evidence of who used, owned, or controlled the computer or storage medium at the time the things described in this warrant were created, edited, or deleted, such as logs, IP addresses, routing information, methods of connection, registry entries, configuration files, saved usernames and passwords, documents, browsing history, user profiles, email, email contacts, “chat,” instant messaging logs, photographs, and correspondence;
- b. Evidence of software that would allow others to control or track the computer or storage medium, such as viruses, cookies, Trojan horses, and other forms of malicious software, as well as evidence of the presence or absence of security software designed to detect malicious software;
- c. Evidence of the lack of such malicious software;

- d. Evidence indicating how and when the computer or storage medium was accessed or used to determine the chronological context of computer access, use, and events relating to crime under investigation and to the computer user;
- e. Evidence computer user's state of mind as it relates to the crime under investigation; evidence of the attachment to the computer or storage medium of other storage devices or similar containers for electronic evidence;
- f. Evidence of counter-forensic programs (and associate data) that are designed to eliminate data from the computer or storage medium;
- g. Evidence of the times the computer or storage medium was used;
- h. Passwords, encryption keys, and other access devices that may be necessary to access the computer or storage medium;
- i. Documentation and manuals that may be necessary to access the computer or storage medium or to conduct a forensic examination of the computer or storage medium;
- j. Records of or information about Internet Protocol addresses used by the computer or storage medium;
- k. Records of or information about the computer or storage medium's Internet activity, including firewall logs, caches, browser history and cookies, "bookmarked" or "favorite" web pages, search terms that the user entered into any Internet search engine, and records of user-typed web addresses; and
- l. Contextual information necessary to understand the evidence described in this attachment.

3. OTHER PHYSICAL EVIDENCE:

- a. Any bulk cash, cashiers' checks, or other foreign currency with a value exceeding a U.S. currency value of \$1,000; and
- b. Passports.

4. DEFINITIONS

- a. As used above, the terms "records" and "information" includes all forms of creation or storage, including any form of computer or electronic storage (such as hard disks or other media that can store data); any handmade form (such as writing); any mechanical form (such as printing or typing); and any photographic form (such as microfilm, microfiche, prints, slides, negatives, videotapes, motion pictures, or photocopies).
- b. The term "computer" includes all types of electronic, magnetic, optical, electrochemical, or other high-speed data processing devices performing logical, arithmetic, or storage functions, including desktop computers, notebook computers, mobile phones, tablets, server computers, and network hardware.
- c. The term "storage medium" includes any physical object upon which computer data can be recorded. Examples include hard disks, RAM, flash memory, CD-ROMs, and other magnetic or optical media.
- d. As used above, the terms "records," "documents," "data" and "information" include all of the forgoing items of evidence in whatever form and by whatever means they may have been created or stored.

5. REVIEW OF ELECTRONIC MEDIA: This warrant authorizes a review of electronic storage media and electronically stored information seized or copied pursuant to this warrant in order to locate evidence, fruits, and instrumentalities described in this warrant. The review of this electronic data may be conducted by any government personnel assisting in the investigation, who may include, law enforcement officers and agents, attorneys for the government, attorney support staff, and technical experts. Pursuant to this warrant, the FBI may deliver a complete copy of the seized or copied electronic data to the custody and control of attorneys for the government and their support staff for their independent review.

ATTACHMENT A-3

TARGET VEHICLE 1

A blue-color 2020 Volvo XC60 bearing Virginia license plate number UNE4856.

ATTACHMENT B-3

Information to be searched for and seized by Law Enforcement Personnel from the

TARGET VEHICLE 1, as described in Attachment A-3:

All information that constitutes evidence and instrumentalities concerning violations of 18 U.S.C §§ 371 (Conspiracy), 1001(a)(2) (False statements to Government Agents or Agencies), 1341 (Mail Fraud), and 1343 (Wire Fraud) (collectively, the “Target Offenses”):

1. **RECORDS, DOCUMENTS, DATA AND INFORMATION:** Any records, documents, data, information, computer executable programs, email messages, correspondence, communications, and/or attachments that contain or related to the information described in the subsection below whether located in hard-copy or in electronic-format within any computer, cellphone, tablet device, or other electronic storage medium:

a. Applications, proposals, or contracts involving research grant funding, laboratory resources, research assistance, work-related travel funding, work-related reimbursements and/or employment involving: (1) Gang TAO (“TAO”) and any federal agency of the United States (including the National Science Foundation) or (2) TAO and the People’s Republic of China, the National Science Foundation of China, Nanjing Aeronautics and Astronautics University, and/or any other Chinese-based entities (collectively, “People’s Republic of China”);

b. Patents applications, patent awards, patent royalty payments, entity structures or other information related to the possession of intellectual property involving TAO, including, but not limited to those involving the following areas:

the probabilistic self-adapting compensation method of satellite attitude control system; a kind of fault tolerant control method and control system of drive lacking Rigid-body System; a kind of method for building up of model for the bullet train lengthwise movement containing interference; bullet train actuator adaptive failure compensates location tracking method; A kind of self-adapting compensation method of satellite attitude control system actuator hardover failure; a kind of Adaptive Compensation Control Method of non-minimum phase flight control system actuator sustained intermittent failure; train suspension system fault diagnosis and fault-tolerant control method based on dynamic actuator; fault-tolerant control method and system of under-actuated rigid body system; and self-adaptation compensation method for uncertainty of drive signs of actuator of satellite attitude control system;

c. Employment contract stipulations, proposals, or provisions involving **TAO** and the People's Republic of China, Thousand Talent Plan and/or ChangJiang Scholar Program;

d. Any payment, movement, or transfer of funds to/from or at the direction of **TAO** or **Lanlin Chen (CHEN)** via Alipay and Huaxia Bank or any other Chinese-based banking institution or application;

e. Information, records, or assets involving bank accounts under the control of **TAO** and/or **Chen**, assets exceeding a value of \$1,000, or the receipt of bulk cash;

f. **TAO**'s travel to or from the People's Republic of China, including reservation records, passports, and/or photographs of travel;

- g. Any presentations, lectures, research, or publications related to the People's Republic of China;
- h. Any information involving the following individuals and/or email addresses: Ruiyun Qi; ruiyun.qi@nuaa.edu.cn; Bin Jiang; binjiang@nuaa.edu.cn; Xing Yu; Gong Huajun; ghj301@nuaa.edu.cn; Yang Hao; haoyang@nuaa.edu.cn; Tan Chang; lovetanchang@163.com; Yang Hao; haoyang@nuaa.edu.cn; Wen LiYan; wenliyan8710@163.com; and any email address ending in @nuaa.edu.cn or ending in @163.com.
- i. Research conducted on behalf of/in connection with the People's Republic of China;
- j. Any records involving the receiving or sending of shipments, packages, or other items to/from China;
- k. **TAO**'s employment status, income, or expenses;
- l. Information regarding any student(s) attending Nanjing Aeronautics and Astronautics University or seeking sponsorship to serve as an international student from China and studying at the University of Virginia;
- m. Any logs, passwords, or other documentation showing access to or communications involving financial accounts/applications;
- n. Any logs, passwords, or other records involving the use of WeChat by **TAO** to communicate with Ruiyun Qi; Bin Jiang; Xing Yu; Gong Huajun; Yang Hao; Tan Chang; Yang Hao; Wen LiYan; or any identified student, employee or affiliate of Nanjing Aeronautics and Astronautics University;

- o. Research articles or journal publications written by **TAO** wherein he describes research, findings, and/or funding resources;
- p. Any other evidence indicating the state of mind or intent of **TAO** as it relates to the Target Offenses, including contextual information necessary to understand the evidence described in this attachment, which constitutes evidence of the Target Offenses; and
- q. The identities of individuals with access to the above-listed categories of information involving **TAO**;

2. **COMPUTER RELATED SEIZURES:** For any computer or storage medium whose seizure is otherwise authorized by this warrant, and any computer or storage medium that contains or in which is stored records or information that is otherwise called for by this warrant:

- a. Evidence of who used, owned, or controlled the computer or storage medium at the time the things described in this warrant were created, edited, or deleted, such as logs, IP addresses, routing information, methods of connection, registry entries, configuration files, saved usernames and passwords, documents, browsing history, user profiles, email, email contacts, “chat,” instant messaging logs, photographs, and correspondence;
- b. Evidence of software that would allow others to control or track the computer or storage medium, such as viruses, cookies, Trojan horses, and other forms of malicious software, as well as evidence of the presence or absence of security software designed to detect malicious software;
- c. Evidence of the lack of such malicious software;

- d. Evidence indicating how and when the computer or storage medium was accessed or used to determine the chronological context of computer access, use, and events relating to crime under investigation and to the computer user;
- e. Evidence computer user's state of mind as it relates to the crime under investigation; evidence of the attachment to the computer or storage medium of other storage devices or similar containers for electronic evidence;
- f. Evidence of counter-forensic programs (and associate data) that are designed to eliminate data from the computer or storage medium;
- g. Evidence of the times the computer or storage medium was used;
- h. Passwords, encryption keys, and other access devices that may be necessary to access the computer or storage medium;
- i. Documentation and manuals that may be necessary to access the computer or storage medium or to conduct a forensic examination of the computer or storage medium;
- j. Records of or information about Internet Protocol addresses used by the computer or storage medium;
- k. Records of or information about the computer or storage medium's Internet activity, including firewall logs, caches, browser history and cookies, "bookmarked" or "favorite" web pages, search terms that the user entered into any Internet search engine, and records of user-typed web addresses; and
- l. Contextual information necessary to understand the evidence described in this attachment.

3. OTHER PHYSICAL EVIDENCE:

- a. Any bulk cash, cashiers' checks, or other foreign currency with a value exceeding a U.S. currency value of \$1,000; and
- b. Passports.

4. DEFINITIONS

- a. As used above, the terms "records" and "information" includes all forms of creation or storage, including any form of computer or electronic storage (such as hard disks or other media that can store data); any handmade form (such as writing); any mechanical form (such as printing or typing); and any photographic form (such as microfilm, microfiche, prints, slides, negatives, videotapes, motion pictures, or photocopies).
- b. The term "computer" includes all types of electronic, magnetic, optical, electrochemical, or other high-speed data processing devices performing logical, arithmetic, or storage functions, including desktop computers, notebook computers, mobile phones, tablets, server computers, and network hardware.
- c. The term "storage medium" includes any physical object upon which computer data can be recorded. Examples include hard disks, RAM, flash memory, CD-ROMs, and other magnetic or optical media.
- d. As used above, the terms "records," "documents," "data" and "information" include all of the forgoing items of evidence in whatever form and by whatever means they may have been created or stored.

5. REVIEW OF ELECTRONIC MEDIA: This warrant authorizes a review of electronic storage media and electronically stored information seized or copied pursuant to this warrant in order to locate evidence, fruits, and instrumentalities described in this warrant. The review of this electronic data may be conducted by any government personnel assisting in the investigation, who may include, law enforcement officers and agents, attorneys for the government, attorney support staff, and technical experts. Pursuant to this warrant, the FBI may deliver a complete copy of the seized or copied electronic data to the custody and control of attorneys for the government and their support staff for their independent review.

ATTACHMENT A-4

TARGET VEHICLE 2

A silver-color 2015 Honda Accord bearing Virginia license plate number. VHZ6833 (herein, “TARGET VEHICLE 2”).

ATTACHMENT B-4

Information to be searched for and seized by Law Enforcement Personnel from the

TARGET VEHICLE 2, as described in Attachment A-4:

All information that constitutes evidence and instrumentalities concerning violations of 18 U.S.C §§ 371 (Conspiracy), 1001(a)(2) (False statements to Government Agents or Agencies), 1341 (Mail Fraud), and 1343 (Wire Fraud) (collectively, the “Target Offenses”):

1. **RECORDS, DOCUMENTS, DATA AND INFORMATION:** Any records, documents, data, information, computer executable programs, email messages, correspondence, communications, and/or attachments that contain or related to the information described in the subsection below whether located in hard-copy or in electronic-format within any computer, cellphone, tablet device, or other electronic storage medium:

a. Applications, proposals, or contracts involving research grant funding, laboratory resources, research assistance, work-related travel funding, work-related reimbursements and/or employment involving: (1) Gang TAO (“TAO”) and any federal agency of the United States (including the National Science Foundation) or (2) TAO and the People’s Republic of China, the National Science Foundation of China, Nanjing Aeronautics and Astronautics University, and/or any other Chinese-based entities (collectively, “People’s Republic of China”);

b. Patents applications, patent awards, patent royalty payments, entity structures or other information related to the possession of intellectual property involving TAO, including, but not limited to those involving the following areas:

the probabilistic self-adapting compensation method of satellite attitude control system; a kind of fault tolerant control method and control system of drive lacking Rigid-body System; a kind of method for building up of model for the bullet train lengthwise movement containing interference; bullet train actuator adaptive failure compensates location tracking method; A kind of self-adapting compensation method of satellite attitude control system actuator hardover failure; a kind of Adaptive Compensation Control Method of non-minimum phase flight control system actuator sustained intermittent failure; train suspension system fault diagnosis and fault-tolerant control method based on dynamic actuator; fault-tolerant control method and system of under-actuated rigid body system; and self-adaptation compensation method for uncertainty of drive signs of actuator of satellite attitude control system;

c. Employment contract stipulations, proposals, or provisions involving **TAO** and the People's Republic of China, Thousand Talent Plan and/or ChangJiang Scholar Program;

d. Any payment, movement, or transfer of funds to/from or at the direction of **TAO** or **Lanlin Chen (CHEN)** via Alipay and Huaxia Bank or any other Chinese-based banking institution or application;

e. Information, records, or assets involving bank accounts under the control of **TAO** and/or **Chen**, assets exceeding a value of \$1,000, or the receipt of bulk cash;

f. **TAO**'s travel to or from the People's Republic of China, including reservation records, passports, and/or photographs of travel;

- g. Any presentations, lectures, research, or publications related to the People's Republic of China;
- h. Any information involving the following individuals and/or email addresses: Ruiyun Qi; ruiyun.qi@nuaa.edu.cn; Bin Jiang; binjiang@nuaa.edu.cn; Xing Yu; Gong Huajun; ghj301@nuaa.edu.cn; Yang Hao; haoyang@nuaa.edu.cn; Tan Chang; lovetanchang@163.com; Yang Hao; haoyang@nuaa.edu.cn; Wen LiYan; wenliyan8710@163.com; and any email address ending in @nuaa.edu.cn or ending in @163.com.
- i. Research conducted on behalf of/in connection with the People's Republic of China;
- j. Any records involving the receiving or sending of shipments, packages, or other items to/from China;
- k. **TAO**'s employment status, income, or expenses;
- l. Information regarding any student(s) attending Nanjing Aeronautics and Astronautics University or seeking sponsorship to serve as an international student from China and studying at the University of Virginia;
- m. Any logs, passwords, or other documentation showing access to or communications involving financial accounts/applications;
- n. Any logs, passwords, or other records involving the use of WeChat by **TAO** to communicate with Ruiyun Qi; Bin Jiang; Xing Yu; Gong Huajun; Yang Hao; Tan Chang; Yang Hao; Wen LiYan; or any identified student, employee or affiliate of Nanjing Aeronautics and Astronautics University;

- o. Research articles or journal publications written by **TAO** wherein he describes research, findings, and/or funding resources;
- p. Any other evidence indicating the state of mind or intent of **TAO** as it relates to the Target Offenses, including contextual information necessary to understand the evidence described in this attachment, which constitutes evidence of the Target Offenses; and
- q. The identities of individuals with access to the above-listed categories of information involving **TAO**;

2. **COMPUTER RELATED SEIZURES:** For any computer or storage medium whose seizure is otherwise authorized by this warrant, and any computer or storage medium that contains or in which is stored records or information that is otherwise called for by this warrant:

- a. Evidence of who used, owned, or controlled the computer or storage medium at the time the things described in this warrant were created, edited, or deleted, such as logs, IP addresses, routing information, methods of connection, registry entries, configuration files, saved usernames and passwords, documents, browsing history, user profiles, email, email contacts, “chat,” instant messaging logs, photographs, and correspondence;
- b. Evidence of software that would allow others to control or track the computer or storage medium, such as viruses, cookies, Trojan horses, and other forms of malicious software, as well as evidence of the presence or absence of security software designed to detect malicious software;
- c. Evidence of the lack of such malicious software;

- d. Evidence indicating how and when the computer or storage medium was accessed or used to determine the chronological context of computer access, use, and events relating to crime under investigation and to the computer user;
- e. Evidence computer user's state of mind as it relates to the crime under investigation; evidence of the attachment to the computer or storage medium of other storage devices or similar containers for electronic evidence;
- f. Evidence of counter-forensic programs (and associate data) that are designed to eliminate data from the computer or storage medium;
- g. Evidence of the times the computer or storage medium was used;
- h. Passwords, encryption keys, and other access devices that may be necessary to access the computer or storage medium;
- i. Documentation and manuals that may be necessary to access the computer or storage medium or to conduct a forensic examination of the computer or storage medium;
- j. Records of or information about Internet Protocol addresses used by the computer or storage medium;
- k. Records of or information about the computer or storage medium's Internet activity, including firewall logs, caches, browser history and cookies, "bookmarked" or "favorite" web pages, search terms that the user entered into any Internet search engine, and records of user-typed web addresses; and
- l. Contextual information necessary to understand the evidence described in this attachment.

3. OTHER PHYSICAL EVIDENCE:

- a. Any bulk cash, cashiers' checks, or other foreign currency with a value exceeding a U.S. currency value of \$1,000; and
- b. Passports.

4. DEFINITIONS

- a. As used above, the terms "records" and "information" includes all forms of creation or storage, including any form of computer or electronic storage (such as hard disks or other media that can store data); any handmade form (such as writing); any mechanical form (such as printing or typing); and any photographic form (such as microfilm, microfiche, prints, slides, negatives, videotapes, motion pictures, or photocopies).
- b. The term "computer" includes all types of electronic, magnetic, optical, electrochemical, or other high-speed data processing devices performing logical, arithmetic, or storage functions, including desktop computers, notebook computers, mobile phones, tablets, server computers, and network hardware.
- c. The term "storage medium" includes any physical object upon which computer data can be recorded. Examples include hard disks, RAM, flash memory, CD-ROMs, and other magnetic or optical media.
- d. As used above, the terms "records," "documents," "data" and "information" include all of the forgoing items of evidence in whatever form and by whatever means they may have been created or stored.

5. REVIEW OF ELECTRONIC MEDIA: This warrant authorizes a review of electronic storage media and electronically stored information seized or copied pursuant to this warrant in order to locate evidence, fruits, and instrumentalities described in this warrant. The review of this electronic data may be conducted by any government personnel assisting in the investigation, who may include, law enforcement officers and agents, attorneys for the government, attorney support staff, and technical experts. Pursuant to this warrant, the FBI may deliver a complete copy of the seized or copied electronic data to the custody and control of attorneys for the government and their support staff for their independent review.

ATTACHMENT A-5

TARGET CELLPHONE 1

An white-color iPhone 11 with 128GB memory and serial number C7CZLMA1N742 (herein, “**TARGET CELLPHONE 1**”).

ATTACHMENT B-5

Information to be searched for and seized by Law Enforcement Personnel from the

TARGET CELLPHONE 1, as described in Attachment A-5:

All information that constitutes evidence and instrumentalities concerning violations of 18 U.S.C §§ 371 (Conspiracy), 1001(a)(2) (False statements to Government Agents or Agencies), 1341 (Mail Fraud), and 1343 (Wire Fraud) (collectively, the “Target Offenses”):

1. **RECORDS, DOCUMENTS, DATA AND INFORMATION:** Any records, documents, data, information, computer executable programs, email messages, correspondence, communications, and/or attachments that contain or related to the information described in the subsection below in electronic-format found within **TARGET CELLPHONE 1:**

a. Applications, proposals, or contracts involving research grant funding, laboratory resources, research assistance, work-related travel funding, work-related reimbursements and/or employment involving: (1) Gang TAO (“TAO”) and any federal agency of the United States (including the National Science Foundation) or (2) TAO and the People’s Republic of China, the National Science Foundation of China, Nanjing Aeronautics and Astronautics University, and/or any other Chinese-based entities (collectively, “People’s Republic of China”);

b. Patents applications, patent awards, patent royalty payments, entity structures or other information related to the possession of intellectual property involving TAO, including, but not limited to those involving the following areas: the probabilistic self-adapting compensation method of satellite attitude control

system; a kind of fault tolerant control method and control system of drive lacking Rigid-body System; a kind of method for building up of model for the bullet train lengthwise movement containing interference; bullet train actuator adaptive failure compensates location tracking method; A kind of self-adapting compensation method of satellite attitude control system actuator hardover failure; a kind of Adaptive Compensation Control Method of non-minimum phase flight control system actuator sustained intermittent failure; train suspension system fault diagnosis and fault-tolerant control method based on dynamic actuator; fault-tolerant control method and system of under-actuated rigid body system; and self-adaptation compensation method for uncertainty of drive signs of actuator of satellite attitude control system;

c. Employment contract stipulations, proposals, or provisions involving **TAO** and the People's Republic of China, Thousand Talent Plan and/or ChangJiang Scholar Program;

d. Any payment, movement, or transfer of funds to/from or at the direction of **TAO** or **Lanlin Chen (CHEN)** via Alipay and Huaxia Bank or any other Chinese-based banking institution or application;

e. Information, records, or assets involving bank accounts under the control of **TAO** and/or **Chen**, assets exceeding a value of \$1,000, or the receipt of bulk cash;

f. **TAO**'s travel to or from the People's Republic of China, including reservation records, passports, and/or photographs of travel;

- g. Any presentations, lectures, research, or publications related to the People's Republic of China;
- h. Any information involving the following individuals and/or email addresses: Ruiyun Qi; ruiyun.qi@nuaa.edu.cn; Bin Jiang; binjiang@nuaa.edu.cn; Xing Yu; Gong Huajun; ghj301@nuaa.edu.cn; Yang Hao; haoyang@nuaa.edu.cn; Tan Chang; lovetanchang@163.com; Yang Hao; haoyang@nuaa.edu.cn; Wen LiYan; wenliyan8710@163.com; and any email address ending in @nuaa.edu.cn or ending in @163.com.
- i. Research conducted on behalf of/in connection with the People's Republic of China;
- j. Any records involving the receiving or sending of shipments, packages, or other items to/from China;
- k. **TAO**'s employment status, income, or expenses;
- l. Information regarding any student(s) attending Nanjing Aeronautics and Astronautics University or seeking sponsorship to serve as an international student from China and studying at the University of Virginia;
- m. Any logs, passwords, or other documentation showing access to or communications involving financial accounts/applications;
- n. Any logs, passwords, or other records involving the use of WeChat by **TAO** to communicate with Ruiyun Qi; Bin Jiang; Xing Yu; Gong Huajun; Yang Hao; Tan Chang; Yang Hao; Wen LiYan; or any identified student, employee or affiliate of Nanjing Aeronautics and Astronautics University;

- o. Research articles or journal publications written by **TAO** wherein he describes research, findings, and/or funding resources;
- p. Any other evidence indicating the state of mind or intent of **TAO** as it relates to the Target Offenses, including contextual information necessary to understand the evidence described in this attachment, which constitutes evidence of the Target Offenses; and
- q. The identities of individuals with access to the above-listed categories of information involving **TAO**;

2. **COMPUTER RELATED SEIZURES:** For any computer or storage medium whose seizure is otherwise authorized by this warrant, and any computer or storage medium that contains or in which is stored records or information that is otherwise called for by this warrant:

- a. Evidence of who used, owned, or controlled the computer or storage medium at the time the things described in this warrant were created, edited, or deleted, such as logs, IP addresses, routing information, methods of connection, registry entries, configuration files, saved usernames and passwords, documents, browsing history, user profiles, email, email contacts, “chat,” instant messaging logs, photographs, and correspondence;
- b. Evidence of software that would allow others to control or track the computer or storage medium, such as viruses, cookies, Trojan horses, and other forms of malicious software, as well as evidence of the presence or absence of security software designed to detect malicious software;
- c. Evidence of the lack of such malicious software;

- d. Evidence indicating how and when the computer or storage medium was accessed or used to determine the chronological context of computer access, use, and events relating to crime under investigation and to the computer user;
- e. Evidence computer user's state of mind as it relates to the crime under investigation; evidence of the attachment to the computer or storage medium of other storage devices or similar containers for electronic evidence;
- f. Evidence of counter-forensic programs (and associate data) that are designed to eliminate data from the computer or storage medium;
- g. Evidence of the times the computer or storage medium was used;
- h. Passwords, encryption keys, and other access devices that may be necessary to access the computer or storage medium;
- i. Documentation and manuals that may be necessary to access the computer or storage medium or to conduct a forensic examination of the computer or storage medium;
- j. Records of or information about Internet Protocol addresses used by the computer or storage medium;
- k. Records of or information about the computer or storage medium's Internet activity, including firewall logs, caches, browser history and cookies, "bookmarked" or "favorite" web pages, search terms that the user entered into any Internet search engine, and records of user-typed web addresses; and
- l. Contextual information necessary to understand the evidence described in this attachment.

4. DEFINITIONS

- a. As used above, the terms "records" and "information" includes all forms of creation or storage, including any form of computer or electronic storage (such as hard disks or other media that can store data); any handmade form (such as writing); any mechanical form (such as printing or typing); and any photographic form (such as microfilm, microfiche, prints, slides, negatives, videotapes, motion pictures, or photocopies).
- b. The term "computer" includes all types of electronic, magnetic, optical, electrochemical, or other high-speed data processing devices performing logical, arithmetic, or storage functions, including desktop computers, notebook computers, mobile phones, tablets, server computers, and network hardware.
- c. The term "storage medium" includes any physical object upon which computer data can be recorded. Examples include hard disks, RAM, flash memory, CD-ROMs, and other magnetic or optical media.
- d. As used above, the terms "records," "documents," "data" and "information" include all of the forgoing items of evidence in whatever form and by whatever means they may have been created or stored.

5. REVIEW OF ELECTRONIC MEDIA: This warrant authorizes a review of electronic storage media and electronically stored information seized or copied pursuant to this warrant in order to locate evidence, fruits, and instrumentalities described in this warrant. The review of this electronic data may be conducted by any government personnel assisting in the investigation, who may include, law enforcement officers and agents, attorneys for the government, attorney support staff, and technical experts. Pursuant to this warrant, the FBI may deliver a complete copy of the seized or copied electronic data to the custody and control of attorneys for the government and their support staff for their independent review.

ATTACHMENT A-6

TARGET CELLPHONE 2

A silver-color iPhone 6S with 64GB memory and serial number DNPQT032GRXX (herein, “**TARGET CELLPHONE 2**”).

ATTACHMENT B-6

Information to be searched for and seized by Law Enforcement Personnel from the

TARGET CELLPHONE 2, as described in Attachment A-6:

All information that constitutes evidence and instrumentalities concerning violations of 18 U.S.C §§ 371 (Conspiracy), 1001(a)(2) (False statements to Government Agents or Agencies), 1341 (Mail Fraud), and 1343 (Wire Fraud) (collectively, the “Target Offenses”):

1. **RECORDS, DOCUMENTS, DATA AND INFORMATION:** Any records, documents, data, information, computer executable programs, email messages, correspondence, communications, and/or attachments that contain or related to the information described in the subsection below in electronic-format found within **TARGET CELLPHONE 2:**

a. Applications, proposals, or contracts involving research grant funding, laboratory resources, research assistance, work-related travel funding, work-related reimbursements and/or employment involving: (1) Gang TAO (“TAO”) and any federal agency of the United States (including the National Science Foundation) or (2) TAO and the People’s Republic of China, the National Science Foundation of China, Nanjing Aeronautics and Astronautics University, and/or any other Chinese-based entities (collectively, “People’s Republic of China”);

b. Patents applications, patent awards, patent royalty payments, entity structures or other information related to the possession of intellectual property involving TAO, including, but not limited to those involving the following areas: the probabilistic self-adapting compensation method of satellite attitude control

system; a kind of fault tolerant control method and control system of drive lacking Rigid-body System; a kind of method for building up of model for the bullet train lengthwise movement containing interference; bullet train actuator adaptive failure compensates location tracking method; A kind of self-adapting compensation method of satellite attitude control system actuator hardover failure; a kind of Adaptive Compensation Control Method of non-minimum phase flight control system actuator sustained intermittent failure; train suspension system fault diagnosis and fault-tolerant control method based on dynamic actuator; fault-tolerant control method and system of under-actuated rigid body system; and self-adaptation compensation method for uncertainty of drive signs of actuator of satellite attitude control system;

c. Employment contract stipulations, proposals, or provisions involving **TAO** and the People's Republic of China, Thousand Talent Plan and/or ChangJiang Scholar Program;

d. Any payment, movement, or transfer of funds to/from or at the direction of **TAO** or **Lanlin Chen (CHEN)** via Alipay and Huaxia Bank or any other Chinese-based banking institution or application;

e. Information, records, or assets involving bank accounts under the control of **TAO** and/or **Chen**, assets exceeding a value of \$1,000, or the receipt of bulk cash;

f. **TAO**'s travel to or from the People's Republic of China, including reservation records, passports, and/or photographs of travel;

- g. Any presentations, lectures, research, or publications related to the People's Republic of China;
- h. Any information involving the following individuals and/or email addresses: Ruiyun Qi; ruiyun.qi@nuaa.edu.cn; Bin Jiang; binjiang@nuaa.edu.cn; Xing Yu; Gong Huajun; ghj301@nuaa.edu.cn; Yang Hao; haoyang@nuaa.edu.cn; Tan Chang; lovetanchang@163.com; Yang Hao; haoyang@nuaa.edu.cn; Wen LiYan; wenliyan8710@163.com; and any email address ending in @nuaa.edu.cn or ending in @163.com.
- i. Research conducted on behalf of/in connection with the People's Republic of China;
- j. Any records involving the receiving or sending of shipments, packages, or other items to/from China;
- k. **TAO**'s employment status, income, or expenses;
- l. Information regarding any student(s) attending Nanjing Aeronautics and Astronautics University or seeking sponsorship to serve as an international student from China and studying at the University of Virginia;
- m. Any logs, passwords, or other documentation showing access to or communications involving financial accounts/applications;
- n. Any logs, passwords, or other records involving the use of WeChat by **TAO** to communicate with Ruiyun Qi; Bin Jiang; Xing Yu; Gong Huajun; Yang Hao; Tan Chang; Yang Hao; Wen LiYan; or any identified student, employee or affiliate of Nanjing Aeronautics and Astronautics University;

- o. Research articles or journal publications written by **TAO** wherein he describes research, findings, and/or funding resources;
- p. Any other evidence indicating the state of mind or intent of **TAO** as it relates to the Target Offenses, including contextual information necessary to understand the evidence described in this attachment, which constitutes evidence of the Target Offenses; and
- q. The identities of individuals with access to the above-listed categories of information involving **TAO**;

2. **COMPUTER RELATED SEIZURES:** For any computer or storage medium whose seizure is otherwise authorized by this warrant, and any computer or storage medium that contains or in which is stored records or information that is otherwise called for by this warrant:

- a. Evidence of who used, owned, or controlled the computer or storage medium at the time the things described in this warrant were created, edited, or deleted, such as logs, IP addresses, routing information, methods of connection, registry entries, configuration files, saved usernames and passwords, documents, browsing history, user profiles, email, email contacts, “chat,” instant messaging logs, photographs, and correspondence;
- b. Evidence of software that would allow others to control or track the computer or storage medium, such as viruses, cookies, Trojan horses, and other forms of malicious software, as well as evidence of the presence or absence of security software designed to detect malicious software;
- c. Evidence of the lack of such malicious software;

- d. Evidence indicating how and when the computer or storage medium was accessed or used to determine the chronological context of computer access, use, and events relating to crime under investigation and to the computer user;
- e. Evidence computer user's state of mind as it relates to the crime under investigation; evidence of the attachment to the computer or storage medium of other storage devices or similar containers for electronic evidence;
- f. Evidence of counter-forensic programs (and associate data) that are designed to eliminate data from the computer or storage medium;
- g. Evidence of the times the computer or storage medium was used;
- h. Passwords, encryption keys, and other access devices that may be necessary to access the computer or storage medium;
- i. Documentation and manuals that may be necessary to access the computer or storage medium or to conduct a forensic examination of the computer or storage medium;
- j. Records of or information about Internet Protocol addresses used by the computer or storage medium;
- k. Records of or information about the computer or storage medium's Internet activity, including firewall logs, caches, browser history and cookies, "bookmarked" or "favorite" web pages, search terms that the user entered into any Internet search engine, and records of user-typed web addresses; and
- l. Contextual information necessary to understand the evidence described in this attachment.

4. DEFINITIONS

- a. As used above, the terms "records" and "information" includes all forms of creation or storage, including any form of computer or electronic storage (such as hard disks or other media that can store data); any handmade form (such as writing); any mechanical form (such as printing or typing); and any photographic form (such as microfilm, microfiche, prints, slides, negatives, videotapes, motion pictures, or photocopies).
- b. The term "computer" includes all types of electronic, magnetic, optical, electrochemical, or other high-speed data processing devices performing logical, arithmetic, or storage functions, including desktop computers, notebook computers, mobile phones, tablets, server computers, and network hardware.
- c. The term "storage medium" includes any physical object upon which computer data can be recorded. Examples include hard disks, RAM, flash memory, CD-ROMs, and other magnetic or optical media.
- d. As used above, the terms "records," "documents," "data" and "information" include all of the forgoing items of evidence in whatever form and by whatever means they may have been created or stored.

5. REVIEW OF ELECTRONIC MEDIA: This warrant authorizes a review of electronic storage media and electronically stored information seized or copied pursuant to this warrant in order to locate evidence, fruits, and instrumentalities described in this warrant. The review of this electronic data may be conducted by any government personnel assisting in the investigation, who may include, law enforcement officers and agents, attorneys for the government, attorney support staff, and technical experts. Pursuant to this warrant, the FBI may deliver a complete copy of the seized or copied electronic data to the custody and control of attorneys for the government and their support staff for their independent review.

ATTACHMENT A-7

Subject to be Search: GANG TAO

An individual named Gang Tao (“**TAO**”) with a height of 5’ 5”, weight of 170 pounds, brown eyes, and black hair, including any satchels, briefcases, backpacks, or other items under his immediate custody or control. **TAO** is depicted in the photograph below.



ATTACHMENT B-7

Information to be searched for and seized by Law Enforcement Personnel from the **TAO**, as described in Attachment A-7:

All information that constitutes evidence and instrumentalities concerning violations of 18 U.S.C §§ 371 (Conspiracy), 1001(a)(2) (False statements to Government Agents or Agencies), 1341 (Mail Fraud), and 1343 (Wire Fraud) (collectively, the “Target Offenses”):

1. **RECORDS, DOCUMENTS, DATA AND INFORMATION:** Any records, documents, data, information, computer executable programs, email messages, correspondence, communications, and/or attachments that contain or related to the information described in the subsection below whether located in hard-copy or in electronic-format within any computer, cellphone, tablet device, or other electronic storage medium:

a. Applications, proposals, or contracts involving research grant funding, laboratory resources, research assistance, work-related travel funding, work-related reimbursements and/or employment involving: (1) Gang TAO (“TAO”) and any federal agency of the United States (including the National Science Foundation) or (2) TAO and the People’s Republic of China, the National Science Foundation of China, Nanjing Aeronautics and Astronautics University, and/or any other Chinese-based entities (collectively, “People’s Republic of China”);

b. Patents applications, patent awards, patent royalty payments, entity structures or other information related to the possession of intellectual property involving TAO, including, but not limited to those involving the following areas:

the probabilistic self-adapting compensation method of satellite attitude control system; a kind of fault tolerant control method and control system of drive lacking Rigid-body System; a kind of method for building up of model for the bullet train lengthwise movement containing interference; bullet train actuator adaptive failure compensates location tracking method; A kind of self-adapting compensation method of satellite attitude control system actuator hardover failure; a kind of Adaptive Compensation Control Method of non-minimum phase flight control system actuator sustained intermittent failure; train suspension system fault diagnosis and fault-tolerant control method based on dynamic actuator; fault-tolerant control method and system of under-actuated rigid body system; and self-adaptation compensation method for uncertainty of drive signs of actuator of satellite attitude control system;

c. Employment contract stipulations, proposals, or provisions involving **TAO** and the People's Republic of China, Thousand Talent Plan and/or ChangJiang Scholar Program;

d. Any payment, movement, or transfer of funds to/from or at the direction of **TAO** or **Lanlin Chen (CHEN)** via Alipay and Huaxia Bank or any other Chinese-based banking institution or application;

e. Information, records, or assets involving bank accounts under the control of **TAO** and/or **Chen**, assets exceeding a value of \$1,000, or the receipt of bulk cash;

f. **TAO**'s travel to or from the People's Republic of China, including reservation records, passports, and/or photographs of travel;

- g. Any presentations, lectures, research, or publications related to the People's Republic of China;
- h. Any information involving the following individuals and/or email addresses: Ruiyun Qi; ruiyun.qi@nuaa.edu.cn; Bin Jiang; binjiang@nuaa.edu.cn; Xing Yu; Gong Huajun; ghj301@nuaa.edu.cn; Yang Hao; haoyang@nuaa.edu.cn; Tan Chang; lovetanchang@163.com; Yang Hao; haoyang@nuaa.edu.cn; Wen LiYan; wenliyan8710@163.com; and any email address ending in @nuaa.edu.cn or ending in @163.com.
- i. Research conducted on behalf of/in connection with the People's Republic of China;
- j. Any records involving the receiving or sending of shipments, packages, or other items to/from China;
- k. **TAO**'s employment status, income, or expenses;
- l. Information regarding any student(s) attending Nanjing Aeronautics and Astronautics University or seeking sponsorship to serve as an international student from China and studying at the University of Virginia;
- m. Any logs, passwords, or other documentation showing access to or communications involving financial accounts/applications;
- n. Any logs, passwords, or other records involving the use of WeChat by **TAO** to communicate with Ruiyun Qi; Bin Jiang; Xing Yu; Gong Huajun; Yang Hao; Tan Chang; Yang Hao; Wen LiYan; or any identified student, employee or affiliate of Nanjing Aeronautics and Astronautics University;

- o. Research articles or journal publications written by **TAO** wherein he describes research, findings, and/or funding resources;
- p. Any other evidence indicating the state of mind or intent of **TAO** as it relates to the Target Offenses, including contextual information necessary to understand the evidence described in this attachment, which constitutes evidence of the Target Offenses; and
- q. The identities of individuals with access to the above-listed categories of information involving **TAO**;

2. **COMPUTER RELATED SEIZURES:** For any computer or storage medium whose seizure is otherwise authorized by this warrant, and any computer or storage medium that contains or in which is stored records or information that is otherwise called for by this warrant:

- a. Evidence of who used, owned, or controlled the computer or storage medium at the time the things described in this warrant were created, edited, or deleted, such as logs, IP addresses, routing information, methods of connection, registry entries, configuration files, saved usernames and passwords, documents, browsing history, user profiles, email, email contacts, “chat,” instant messaging logs, photographs, and correspondence;
- b. Evidence of software that would allow others to control or track the computer or storage medium, such as viruses, cookies, Trojan horses, and other forms of malicious software, as well as evidence of the presence or absence of security software designed to detect malicious software;
- c. Evidence of the lack of such malicious software;

- d. Evidence indicating how and when the computer or storage medium was accessed or used to determine the chronological context of computer access, use, and events relating to crime under investigation and to the computer user;
- e. Evidence computer user's state of mind as it relates to the crime under investigation; evidence of the attachment to the computer or storage medium of other storage devices or similar containers for electronic evidence;
- f. Evidence of counter-forensic programs (and associate data) that are designed to eliminate data from the computer or storage medium;
- g. Evidence of the times the computer or storage medium was used;
- h. Passwords, encryption keys, and other access devices that may be necessary to access the computer or storage medium;
- i. Documentation and manuals that may be necessary to access the computer or storage medium or to conduct a forensic examination of the computer or storage medium;
- j. Records of or information about Internet Protocol addresses used by the computer or storage medium;
- k. Records of or information about the computer or storage medium's Internet activity, including firewall logs, caches, browser history and cookies, "bookmarked" or "favorite" web pages, search terms that the user entered into any Internet search engine, and records of user-typed web addresses; and
- l. Contextual information necessary to understand the evidence described in this attachment.

3. OTHER PHYSICAL EVIDENCE:

- a. Any bulk cash, cashiers' checks, or other foreign currency with a value exceeding a U.S. currency value of \$1,000; and
- b. Passports.

4. DEFINITIONS

- a. As used above, the terms "records" and "information" includes all forms of creation or storage, including any form of computer or electronic storage (such as hard disks or other media that can store data); any handmade form (such as writing); any mechanical form (such as printing or typing); and any photographic form (such as microfilm, microfiche, prints, slides, negatives, videotapes, motion pictures, or photocopies).
- b. The term "computer" includes all types of electronic, magnetic, optical, electrochemical, or other high-speed data processing devices performing logical, arithmetic, or storage functions, including desktop computers, notebook computers, mobile phones, tablets, server computers, and network hardware.
- c. The term "storage medium" includes any physical object upon which computer data can be recorded. Examples include hard disks, RAM, flash memory, CD-ROMs, and other magnetic or optical media.
- d. As used above, the terms "records," "documents," "data" and "information" include all of the forgoing items of evidence in whatever form and by whatever means they may have been created or stored.

5. REVIEW OF ELECTRONIC MEDIA: This warrant authorizes a review of electronic storage media and electronically stored information seized or copied pursuant to this warrant in order to locate evidence, fruits, and instrumentalities described in this warrant. The review of this electronic data may be conducted by any government personnel assisting in the investigation, who may include, law enforcement officers and agents, attorneys for the government, attorney support staff, and technical experts. Pursuant to this warrant, the FBI may deliver a complete copy of the seized or copied electronic data to the custody and control of attorneys for the government and their support staff for their independent review.

ATTACHMENT A-8

Subject to be Search: **Lanlin Chen**

An individual named **Lanlin Chen** ("CHEN") with a height of 5' 3", weight of 130 pounds, and black hair, including any satchel, briefcase, backpack, or other items under her immediate custody or control. **CHEN** is depicted in the photograph below.



ATTACHMENT B-8

Information to be searched for and seized by Law Enforcement Personnel from the

Lanlin CHEN, as described in Attachment A-8:

All information that constitutes evidence and instrumentalities concerning violations of 18 U.S.C §§ 371 (Conspiracy), 1001(a)(2) (False statements to Government Agents or Agencies), 1341 (Mail Fraud), and 1343 (Wire Fraud) (collectively, the “Target Offenses”):

1. **RECORDS, DOCUMENTS, DATA AND INFORMATION:** Any records, documents, data, information, computer executable programs, email messages, correspondence, communications, and/or attachments that contain or related to the information described in the subsection below whether located in hard-copy or in electronic-format within any computer, cellphone, tablet device, or other electronic storage medium:

a. Applications, proposals, or contracts involving research grant funding, laboratory resources, research assistance, work-related travel funding, work-related reimbursements and/or employment involving: (1) Gang TAO (“TAO”) and any federal agency of the United States (including the National Science Foundation) or (2) TAO and the People’s Republic of China, the National Science Foundation of China, Nanjing Aeronautics and Astronautics University, and/or any other Chinese-based entities (collectively, “People’s Republic of China”);

b. Patents applications, patent awards, patent royalty payments, entity structures or other information related to the possession of intellectual property involving TAO, including, but not limited to those involving the following areas:

the probabilistic self-adapting compensation method of satellite attitude control system; a kind of fault tolerant control method and control system of drive lacking Rigid-body System; a kind of method for building up of model for the bullet train lengthwise movement containing interference; bullet train actuator adaptive failure compensates location tracking method; A kind of self-adapting compensation method of satellite attitude control system actuator hardover failure; a kind of Adaptive Compensation Control Method of non-minimum phase flight control system actuator sustained intermittent failure; train suspension system fault diagnosis and fault-tolerant control method based on dynamic actuator; fault-tolerant control method and system of under-actuated rigid body system; and self-adaptation compensation method for uncertainty of drive signs of actuator of satellite attitude control system;

c. Employment contract stipulations, proposals, or provisions involving **TAO** and the People's Republic of China, Thousand Talent Plan and/or ChangJiang Scholar Program;

d. Any payment, movement, or transfer of funds to/from or at the direction of **TAO** or **Lanlin Chen (CHEN)** via Alipay and Huaxia Bank or any other Chinese-based banking institution or application;

e. Information, records, or assets involving bank accounts under the control of **TAO** and/or **Chen**, assets exceeding a value of \$1,000, or the receipt of bulk cash;

f. **TAO**'s travel to or from the People's Republic of China, including reservation records, passports, and/or photographs of travel;

- g. Any presentations, lectures, research, or publications related to the People's Republic of China;
- h. Any information involving the following individuals and/or email addresses: Ruiyun Qi; ruiyun.qi@nuaa.edu.cn; Bin Jiang; binjiang@nuaa.edu.cn; Xing Yu; Gong Huajun; ghj301@nuaa.edu.cn; Yang Hao; haoyang@nuaa.edu.cn; Tan Chang; lovetanchang@163.com; Yang Hao; haoyang@nuaa.edu.cn; Wen LiYan; wenliyan8710@163.com; and any email address ending in @nuaa.edu.cn or ending in @163.com.
- i. Research conducted on behalf of/in connection with the People's Republic of China;
- j. Any records involving the receiving or sending of shipments, packages, or other items to/from China;
- k. **TAO**'s employment status, income, or expenses;
- l. Information regarding any student(s) attending Nanjing Aeronautics and Astronautics University or seeking sponsorship to serve as an international student from China and studying at the University of Virginia;
- m. Any logs, passwords, or other documentation showing access to or communications involving financial accounts/applications;
- n. Any logs, passwords, or other records involving the use of WeChat by **TAO** to communicate with Ruiyun Qi; Bin Jiang; Xing Yu; Gong Huajun; Yang Hao; Tan Chang; Yang Hao; Wen LiYan; or any identified student, employee or affiliate of Nanjing Aeronautics and Astronautics University;

- o. Research articles or journal publications written by **TAO** wherein he describes research, findings, and/or funding resources;
- p. Any other evidence indicating the state of mind or intent of **TAO** as it relates to the Target Offenses, including contextual information necessary to understand the evidence described in this attachment, which constitutes evidence of the Target Offenses; and
- q. The identities of individuals with access to the above-listed categories of information involving **TAO**;

2. **COMPUTER RELATED SEIZURES:** For any computer or storage medium whose seizure is otherwise authorized by this warrant, and any computer or storage medium that contains or in which is stored records or information that is otherwise called for by this warrant:

- a. Evidence of who used, owned, or controlled the computer or storage medium at the time the things described in this warrant were created, edited, or deleted, such as logs, IP addresses, routing information, methods of connection, registry entries, configuration files, saved usernames and passwords, documents, browsing history, user profiles, email, email contacts, “chat,” instant messaging logs, photographs, and correspondence;
- b. Evidence of software that would allow others to control or track the computer or storage medium, such as viruses, cookies, Trojan horses, and other forms of malicious software, as well as evidence of the presence or absence of security software designed to detect malicious software;
- c. Evidence of the lack of such malicious software;

- d. Evidence indicating how and when the computer or storage medium was accessed or used to determine the chronological context of computer access, use, and events relating to crime under investigation and to the computer user;
- e. Evidence computer user's state of mind as it relates to the crime under investigation; evidence of the attachment to the computer or storage medium of other storage devices or similar containers for electronic evidence;
- f. Evidence of counter-forensic programs (and associate data) that are designed to eliminate data from the computer or storage medium;
- g. Evidence of the times the computer or storage medium was used;
- h. Passwords, encryption keys, and other access devices that may be necessary to access the computer or storage medium;
- i. Documentation and manuals that may be necessary to access the computer or storage medium or to conduct a forensic examination of the computer or storage medium;
- j. Records of or information about Internet Protocol addresses used by the computer or storage medium;
- k. Records of or information about the computer or storage medium's Internet activity, including firewall logs, caches, browser history and cookies, "bookmarked" or "favorite" web pages, search terms that the user entered into any Internet search engine, and records of user-typed web addresses; and
- l. Contextual information necessary to understand the evidence described in this attachment.

3. OTHER PHYSICAL EVIDENCE:

- a. Any bulk cash, cashiers' checks, or other foreign currency with a value exceeding a U.S. currency value of \$1,000; and
- b. Passports.

4. DEFINITIONS

- a. As used above, the terms "records" and "information" includes all forms of creation or storage, including any form of computer or electronic storage (such as hard disks or other media that can store data); any handmade form (such as writing); any mechanical form (such as printing or typing); and any photographic form (such as microfilm, microfiche, prints, slides, negatives, videotapes, motion pictures, or photocopies).
- b. The term "computer" includes all types of electronic, magnetic, optical, electrochemical, or other high-speed data processing devices performing logical, arithmetic, or storage functions, including desktop computers, notebook computers, mobile phones, tablets, server computers, and network hardware.
- c. The term "storage medium" includes any physical object upon which computer data can be recorded. Examples include hard disks, RAM, flash memory, CD-ROMs, and other magnetic or optical media.
- d. As used above, the terms "records," "documents," "data" and "information" include all of the forgoing items of evidence in whatever form and by whatever means they may have been created or stored.

5. REVIEW OF ELECTRONIC MEDIA: This warrant authorizes a review of electronic storage media and electronically stored information seized or copied pursuant to this warrant in order to locate evidence, fruits, and instrumentalities described in this warrant. The review of this electronic data may be conducted by any government personnel assisting in the investigation, who may include, law enforcement officers and agents, attorneys for the government, attorney support staff, and technical experts. Pursuant to this warrant, the FBI may deliver a complete copy of the seized or copied electronic data to the custody and control of attorneys for the government and their support staff for their independent review.